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26 January 1981

Worldwide Report

EPIDEMIOLOGY

No. 214

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BRIEFS

MOSQUITO-CARRIED VIRUS CONTROLLED--Manaus (O GLOBO)--The Institute of Tropical Disease yesterday gave assurances that the virus carried by the (meruim) mosquito is under control. The virus transmitted by this mosquito leads to meningitis and has spread through the neighborhoods of Manaus, affecting approximately 1,000 persons during the past 2 months. But according to the institute, which is studying this situation, the current cases are of the benign type, although two malignant cases developing into meningitis have been discovered. [Rio de Janeiro O GLOBO in Portuguese 21 Dec 80 p 5]

CSO: 5400

BRIEFS

TYPHUS CASES—There were 11 cases of typhus last week in the Buenos Aires suburb of La Matanza, according to an official communique reported in the CLARIN newspaper. The outbreak was limited to the neighborhood of General Belgrano, and the local government has embarked upon a massive vaccination drive. It was also reported that the 11 typhus victims were all out of danger and that tests indicated that drinking water was not contaminated. [Text] [PY300143 Buenos Aires HERALD in English 29 Dec 80 p 9 PY]

CSO: 5400

CORROSION THREATENS CITY WATER SUPPLIES NATIONWIDE

Perth THE WEST AUSTRALIAN in English 13 Nov 80 p 41

[Excerpts] Sydney: A Swedish expert has begun examining a mystery corrosion problem which is posing a threat to city water supplies throughout Australia.

The problem has reached a serious stage in Newcastle and has surfaced in Sydney. Melbourne water authorities are on the alert.

A Hunter Water Board metallurgist, Dave Nicholas, said that an unexplained chemical reaction was happening when Newcastle water went through copper pipings installed in some buildings.

Corrosion set in, producing a foul-tasting blue water which, when drunk in quantity, had made some people ill.

Mr Nicholas said that nearly 100 buildings had been affected. The trouble seemed to strike at random, missing some buildings, and hitting others.

Consortium

A consortium of big city water authorities, copper producer and the CSIRO were working on the problem but had not identified its cause.

The visiting Swedish expert, Dr Einer Mattsson, of the Stockholm Corrosion Institute, is not expected to come up with a spot diagnosis when looking at the problem in Newcastle.

CSO: 5400

DISPUTE ARISES OVER AVAILABILITY OF MUMPS VACCINE

Sydney THE SYDNEY MORNING HERALD in English 15 Nov 80 p 11

[Article by Gregory Turnbull, medical reporter]

[Text] The use of a $10 vaccine against mumps has been recommended as a public health measure by the National Health and Medical Research Council.

Despite the council's recommendations, the Federal Health Department has no plans to subsidise the cost of the vaccine, by providing it free of charge or by placing it on the pharmaceutical benefits list.

The council has decided that the vaccine, which has been available in Australia for several years, should be included in its routine immunisation schedule.

Other vaccines on the schedule, such as those against polio, diphtheria and measles, are paid for by the department and distributed free of charge by the Commonwealth Serum Laboratories.

The mumps vaccine, called Mumpsvax, is also distributed by the Commonwealth Serum Laboratories, but at a retail price of about $10.

Mumpsvax is recommended for children older than 12 months, and has been given to an estimated 40 million American children since it was put on the market by the pharmaceutical firm Merck, Sharp and Dohme in 1967.

The incidence of mumps in the US has plummeted.

The Department of Health was notified of the council's recommendations two weeks ago.

There was no question of making the vaccine available free of charge, the spokesman said.

Inclusion of the vaccine on the pharmaceutical benefits list would reduce its price to $2.75.

Mumps is a contagious, viral condition which causes uncomfortable swelling of the glands below the ear.

Complications are rare in childhood mumps, but they include deafness and mumps encephalitis.

In adult males, the major complication is orchitis, or swelling of one or both of the testicles. In rare cases this can lead to sterility.

The NSW Health Commission supports the use of Mumpsvax, and is understood to have urged the council recommendation to be adopted.

CSO: 5400

MEASLES CASES BRING WARNING TO PARENTS ON IMMUNIZATION

Perth THE WEST AUSTRALIAN in English 19 Nov 80 p 13

[Excerpts] Eight children have been admitted to Princess Margaret Hospital with measles in the past eight days.

One of them, a boy aged about four, is seriously ill with encephalitis, a complication of the disease.

Encephalitis is inflammation of the lining of the brain.

Five other children are still being treated in PMH, and some of the children have had complications including pneumonia, convulsions, eye and ear trouble.

Doctors urge parents to have children immunised against the disease when they reach 15 months of age.

Before that they have a certain immunity from the mother.

Lucky

Hayley Green (10 months), of Huntingdale, is one of the lucky ones. She was admitted to the hospital on Sunday. Because she is under 15 months her condition is not as serious as it might have been.

Doctors say it is unusual for a baby to become infected in the first year of life.

They urge parents of unimmunised children, who have not had measles, to seek immunisation.

He said there had been about a 12 per cent drop in all types of immunisation—the triple antigen (whooping cough, diphtheria and tetanus), combined diphtheria and tetanus, polio Sabin vaccine, tetanus, and measles.

CSO: 5400

AUSTRALIA

SEWAGE DISCHARGE IN QUEENSLAND CARRIES CHOLERA

Brisbane THE COURIER-MAIL in English 20 Nov 80 p 30

[Excerpt] An injunction against the Brisbane City Council and writs against the Local Government Minister, Mr Hinze and council works committee chairman, Alderman St Ledger will be discussed following the latest breakdown of the Donaldson Road sewage treatment works.

Mandalay Progress Association members, angry because they believe they have been misled by Mr Hinze and Alderman St Ledger, will meet on Monday night to discuss the recommended legal action.

The association president, Mr Warren Fletcher said last night that in September the group was given a guarantee by Mr Hinze and Alderman St Ledger that the Donaldson Road plant, which empties into Oxley Creek, could never break down again.

He said the guarantee was given after findings by a top level committee of representatives from the Local Government Department, Brisbane City Council, the Water Quality Control Council and local resident groups.

The committee backed a Brisbane City Council plan to transfer the effluent outfall of the Donaldson Road plant from Oxley Creek to the Brisbane River at Teesdale Street.

Many Corinda and Mandalay riverside residents were alarmed at the plan, which would pump 42 million litres of treated sewage effluent a day into the river.

The committee claimed there was "virtually no chance of untreated sewage being discharged into the river." A back-up plant system had been installed at the works to prevent a major pollution incident similar to that which had occurred in March this year.

This statement was issued last September. The Donaldson Road plant failed and polluted Oxley Creek last weekend.

The Mandalay Progress Association now will consider legal action to prevent the council proceeding with its Teesdale Street pipeline.

It will consider separate individual legal action against Mr Hinze and Alderman St Ledger.

Mr Fletcher said last night that experts now believed there were three different strains of cholera in Queensland streams, that cholera organisms were at extreme levels of incidence and that the cholera was caused by sewage discharge into streams.

CSO: 5400

AMA URGES STEPS TO STEM OVERSUPPLY OF DOCTORS

Melbourne THE AGE in English 21 Nov 80 p 3

[Article by Deirdre Macken]

[Excerpt] Sydney --The Australian Medical Association has urged universities to cut their intake of medical students by 20 per cent to help stem the growing oversupply of doctors.

The AMA has taken the unprecedented step of writing to the Government's Tertiary Education Commission and all universities to press for the cut. The president of the AMA, Dr Lionel Wilson, says "a tragic waste of human and economic resources" and the creation of "super specialists" will result if the present intake level continues.

"Australia now has at least 26,500 practising doctors, with signs of oversupply in many cities. In 10 years, there will be 33,000 doctors unless student intakes are reduced," he said.

The AMA says the current ratio of one doctor to every 562 people would be maintained with a graduate rate of 900 doctors every year. Universities are producing 1370 new doctors a year. This will substantially reduce the number of patients to each doctor within the next few years.

The association says that "allowing for a large margin of error", a 20 per cent cut would still provide for an extra 1100 doctors each year.

Dr. Wilson denied suggestions that a greater number of doctors would encourage more equal geographical distribution of doctors and better representation in less popular fields of medicine.

Dr Wilson also denied that more doctors would introduce competition fee-cutting and a lower average wage in the medical profession. "Doctors should not be treated like a retail business, some doctors would not be able to make an adequate wage but that is not our main concern, he said. [as published]

CSO: 5400

GOVERNMENT POLICIES SAID TO ENDANGER HOSPITALS

Melbourne THE AGE in English 22 Nov 80 p 5

[Article by Tom Ormonde]

[Excerpt] The State Health Minister, Mr. Borthwick, warned last night that many private hospitals would close unless the Federal Government "dramatically improved" its policy on health insurance and funding.

Mr Borthwick said that the competitive disadvantage to private hospitals under present Federal policies needed to be removed quickly to prevent the closure of many of the hospitals.

His warning follows the disclosure in yesterday's AGE that the Bethesda Hospital, run by the Salvation Army, was near bankruptcy and likely to close by Christmas.

"If the Federal Government does not review this whole question of health insurance and funding, private hospitals like Bethesda will have to close their doors," he said. "That would be a tragedy in a State where 27 per cent of hospital beds are provided by the private sector."

Cheaper

Mr Borthwick said the number of people using private hospitals was diminishing rapidly because private patients at public hospitals were getting cheaper treatment as a result of Govrnmnt subsidies. [as published]

The Federal Government is facing mounting pressure to remove the competitive disadvantage against private hospitals which has reduced occupancy in many to well below 60 per cent.

CSO: 5400

INCIDENCE OF TB IN WESTERN AUSTRALIA MAY BE RISING

Perth THE WEST AUSTRALIAN in English 20 Nov 80 p 57

[Excerpt] Vietnamese migrants made up almost 25 per cent of new tuberculosis patients found in WA last year.

The Public Health Commissioner's annual report, tabled in State Parliament, also showed that the incidence of undetected TB could be rising.

The report by the chest and tuberculosis services branch said that the rate of new cases of TB was 13.7 per 100,000 of population, compared with 11.7 per 100,000 in 1978.

It said that 169 new patients were notified in 1979. They included 89 people born outside Australia--40 of them Vietnamese.

Schools

The report said that positive reactions to preliminary tests in WA schools rose significantly last year to 6.2 per cent in students aged 10 to 14 and 8.9 per cent in those aged 15 to 19.

The branch director, Dr J. T. Cassidy, said that this might reflect the present lack of an active case-finding programme.

This was worrying, he said.

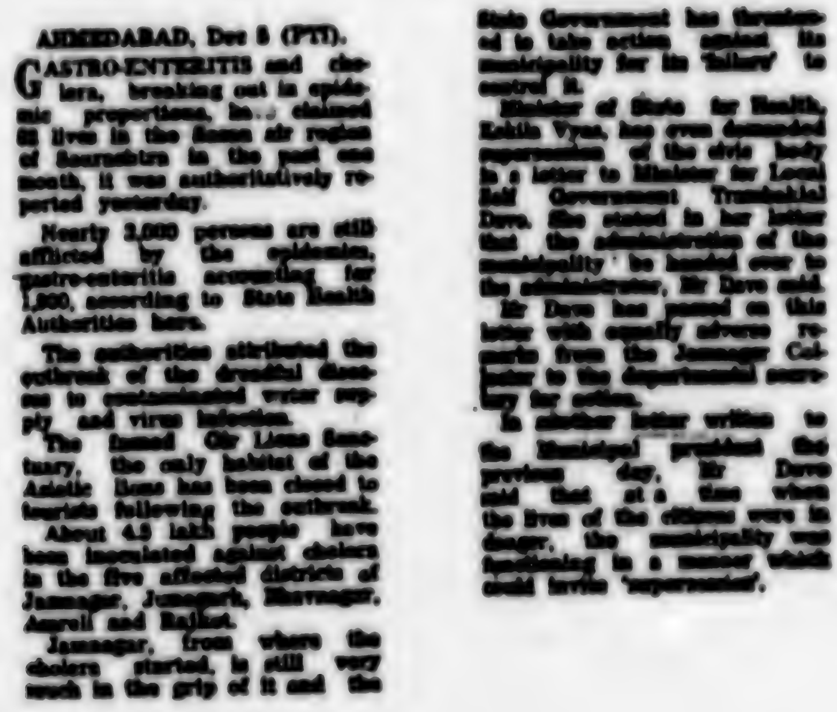
Most of the procedures that helped case-finding in the past had been abandoned. These included an X-ray requirement for jobs, a routine check X-ray on hospital admission, pre-operative X-rays and annual screening of hospital staff.

CSO: 5400

CHOLERA EPIDEMIC REPORTED IN SAURASHTRA

New Delhi PATRIOT in English 6 Dec 80 p 4

[Text]



AHMEDABAD, Dec 5 (PTI).

GASTRO-ENTERITIS and cholera, breaking out in epidemic proportions, have claimed 88 lives in the [illegible] region of Saurashtra in the past one month, it was authoritatively reported yesterday.

Nearly 2,000 persons are still afflicted by the epidemics, gastro-enteritis accounting for 1,800, according to State Health Authorities here.

The authorities attributed the outbreak of the dreadful disease to contaminated water supply and virus infection.

The famed Gir Lions Sanctuary, the only habitat of the Asiatic lions has been closed to tourists following the outbreak.

About 4.5 lakh people have been inoculated against cholera in the five affected districts of Jamnagar, Junagarh, Bhavnagar, Amreli and Rajkot.

Jamnagar, from where the cholera started, is still very much in the grip of it and the State Government has threatened to take action against its municipality for its 'failure' to control it.

Minister of State for Health, Kokila Vyas, has even demanded supersession of the civic body in a letter to Minister for Local Self Government, Trambaklal Dave. She stated in her letter that the administration of the municipality be handed over to the administrator, Mr Dave said.

Mr Dave has passed on this letter with equally adverse remarks from the Jamnagar Collector to the departmental secretary for action.

In another letter written to the Municipal president the previous day, Mr Dave said that at a time when the lives of the citizens were in danger, the municipality was functioning in a manner which could invite 'supersession'.

CSO: 5400

INDONESIA

BRIEFS

MEASLES IN SIMULUNGUN—Suwardjono Surjaningrat, minister of health, explained that the epidemic which caused the death of 19 persons in Simalungun, North Sumatra, is not smallpox but measles (morbili). "It is classified as a virulent type of measles," the minister remarked. He said preparations have now been made for possibly fully controlling the disease. Minister Suwardjono told newsmen at the Polonia airport, Medan, on Friday afternoon [7 November] that measles may cause death, particularly to those who are malnourished. Where there is enough nourishment, there need not be many deaths. At the end of October a number of workers at the PTP [Plantation Co., Ltd]-VIII Toba Sari Estate in Simalungun Regency were attacked by measles which initially was thought to be smallpox. Many deaths resulted before help could be obtained at the Balimbingan Hospital. On 3 November it was recorded that 15 persons had died and deaths continued. By 6 November 19 persons had died. The latest news from Pematang Siantar, the capital of Simalungun Regency, is that the measles epidemic apparently has not subsided. Many inhabitants are still contracting the disease even though they were treated at the Balimbingan Hospital. According to the health minister, Indonesia has been free of smallpox since 1974. Yet we still store smallpox vaccine so that if smallpox spreads, it can be conquered. [Excerpt] [Jakarta KOMPAS in Indonesian 12 Nov 80 p 8]

DENGUE FEVER IN BALI—Dr Moch. Ansari Saleh, chief of the Bali Provincial Health Service, informed SINAR HARAPAN that the number of persons in Bali who suffer from dengue fever (DHF) increases each year. They are treated at regency hospitals and in the Sanglah RSUP [central general hospital] in Denpasar. Dengue fever appeared in Bali in 1973 when a female child about 6 years old was struck with the disease. Through September 1980, 182 persons were recorded as having the disease and 29 persons died (15.38 percent). The average death rate for dengue fever in Indonesia is about 30 percent. This information was given to SINAR HARAPAN in response to a report in one of the issues which said that dengue fever had begun to spread in Sukawati Subdistrict, Gianyar Regency, about 14 kilometers to the east of Denpasar, the most heavily traveled tourist route in Bali. Dr Saleh said victims from the Sukawati Subdistrict treated at the Sanglah RSUP did not have dengue fever but had "aplastic anemia." The symptoms for both diseases are similar. However, Dr Ansari Saleh also admitted to SINAR HARAPAN that two victims do suffer from hemorrhagic fever and are being treated at the Sanglah RSUP and the Singaraja General Hospital. He told SINAR HARAPAN emphatically that the dengue fever developing in Bali is totally unlike the epidemic spreading in Palembang. [Excerpts] [Jakarta SINAR HARAPAN in Indonesian 4 Nov 80 p 3]

WHOOPING COUGH KILLS EIGHT--Jakarta, Nov 30 (AFP)--A whooping cough epidemic killed eight children in Punggelan district of Central Java during the last few weeks and over 300, affected by the highly contagious disease, had to be treated, reports said here today. A provincial health official was quoted as saying that most of the victims were children under 11 year. [Text] [Taipei CHINA POST in English 2 Dec 80 p 6]

CSO: 5400

BRIEFS

INCIDENCE OF TYPHUS DOWN--Dr Tal'at Zaghlul, head of the Preventive Health Department of the Ministry of Health, reports that the number of cases of endemic typhus caused by rats decreased from 254 cases in 1978 to just 50 cases in 1979. This decrease was brought about through the positive results achieved by rat control operations. [Text] [Kuwait AL-QABAS in Arabic 20 Nov 80 p 4] 8591

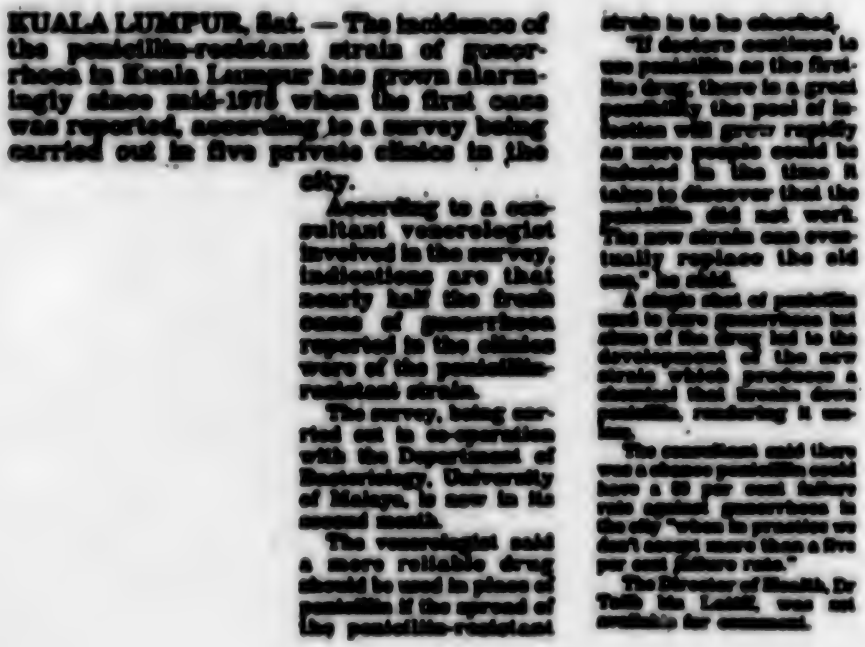
CSO: 4802

MALAYSIA

ALARMING INCREASE IN PENICILLIN-RESISTANT GONORRHOEA

Kuala Lumpur NEW SUNDAY TIMES In English 7 Dec 80 p 8

[Text]



KUALA LUMPUR, Sat. — The incidence of the penicillin-resistant strain of gonorrhoea in Kuala Lumpur has grown alarmingly since mid-1978 when the first case was reported, according to a survey being carried out in five private clinics in the city.

According to a consultant venereologist involved in the survey, indications are that nearly half the fresh cases of gonorrhoea reported in the clinics were of the penicillin-resistant strain.

The survey, being carried out in co-operation with the Department of Bacteriology, University of Malaya, is now in its second month.

The venereologist said a more reliable drug should be used in place of penicillin if the spread of the penicillin-resistant strain is to be checked.

"If doctors continue to use penicillin as the first-line drug, there is a great possibility the pool of infection will grow rapidly as more people could be infected in the time it takes to discover that the penicillin did not work. The new strain can eventually replace the old one," he said.

A single shot of penicillin used to cure gonorrhoea but abuse of the drug led to the development of the new strain which produces a chemical that breaks down penicillin, rendering it useless.

The consultant said there was a chance penicillin could have a 50 per cent failure rate against gonorrhoea in the city "when in practice we don't accept more than a five per cent failure rate."

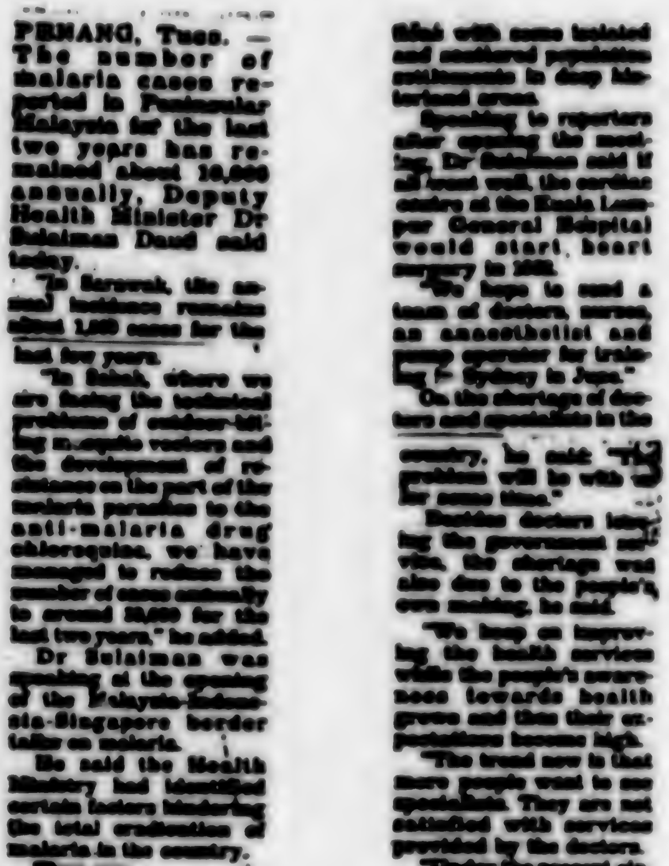
The Director of Health, Dr Taib bin Latiff, was not available for comment.

CSO: 5400

NO INCREASE IN INCIDENCE OF MALARIA IN LAST 2 YEARS

Kuala Lumpur NEW STRAITS TIMES in English 3 Dec 80 p 14

[Text]



PENANG, Tues. — The number of malaria cases reported in Peninsular Malaysia for the last two years has remained about 10,000 annually, Deputy Health Minister Dr Sulaiman Daud said today.

"In Sarawak, the annual incidence remains about 1,000 cases for the last few years.

"In Sabah, where we are facing the technical problems of outdoor-biting mosquito vectors and the development of resistance on the part of the malaria parasites to the anti-malaria drug chloroquine, we have managed to reduce the number of cases annually to around 20,000 for the last two years," he added.

Dr Sulaiman was speaking at the opening of the Malaysia-Indonesia-Singapore border talks on malaria.

He said the Health Ministry had identified certain factors hindering the total eradication of malaria in the country.

They are:

● MOVING population groups leading to difficulties in case detection, treatment and follow-up.

● TEMPORARY living structures which are not amenable to proper spraying operations.

● LARGE development schemes, involving the clearing up of vast tracts of jungles and upsetting the ecological factors, and.

● POOR accessibility and difficult communication with some isolated and scattered population settlements in deep hinterland areas.

Speaking to reporters after opening the meeting, Dr Sulaiman said if all went well, the cardiac centre at the Kuala Lumpur General Hospital would start heart surgery in 1982.

"We hope to send a team of doctors, nurses, an anaesthetist and pump operator for training in Sydney in June."

On the shortage of doctors and specialists in the country, he said: "The problem will be with us for some time."

Besides doctors leaving the government service, the shortage was also due to the people's own making, he said.

"We keep on improving the health services while the people's awareness towards health grows and thus their expectations become high.

"The trend now is that more people want to see specialists. They are not satisfied with services provided by the doctors.

"Under the present circumstances, we cannot provide services up to the level expected by the people," he added.

Dr Sulaiman said about 80 per cent of the vacancies for doctors in each State had been filled.

He said the University of Malaya and Universiti Kebangsaan is producing about 200 doctors a year, and the number is expected to increase with the setting up of a medical faculty at the Universiti Sains Malaysia here.

CSO: 5400

OUTBREAK OF VIRAL CONJUNCTIVITIS UNDER STUDY

Kuala Lumpur NEW STRAITS TIMES in English 21 Nov 80 p 9

[Text] KUALA LUMPUR, Thurs. — The Institute for Medical Research is conducting a study on the current outbreak of viral conjunctivitis in Peninsular Malaysia.

The outbreak this year was first reported in Pahang. The disease was also reported in Perak, Perlis, Negri Sembilan, Kuala Lumpur and Johore.

Head of the Division of Virus Research of the IMR Dr Dora Tan said the division was already working on samples which were just obtained. Results of the investigations are expected within three weeks.

Dr Tan believed the virus causing the disease could be the Coxsackievirus A24 (CA24) which was also responsible for the epidemic in 1975.

Income

The investigation conducted by Dr Tan and her team in the Federal Territory in 1975 showed that the disease was found to be most extensive among the lower income earners.

A majority of the cases were Malays and Indians from surrounding villages and low-cost flats in the Federal Territory.

Most of the 2,155 cases studied between May and August 1975 were male adults.

This year, 7,000 cases were reported in Johore. In Ipoh, an average of 150 cases were reported every day while in Kangar alone, 2,000 cases were treated in the last 3½ months.

The symptoms of the disease are redness of the eyes, watering and soreness. If a patient is not treated, he suffers from fever and the eyes become sticky due to accumulation of pus.

The disease lasts from three to seven days and is highly contagious.

Meanwhile, Bernama reported that the Petaling Jaya Municipality had closed its swimming pool in Jalan Sultan. City Hall will close the Weld swimming pool from tomorrow.

CSO: 5400

TUBERCULOSIS WIDESPREAD THROUGHOUT COUNTRY

Managua EL NUEVO DIARIO in Spanish 27 Nov 80 p 6-B

[Text] Dr Pablo Antonio Cuadra Ayala, head of the Department of Tuberculosis Prevention, has told EL NUEVO DIARIO that according to WHO statistics, in an underdeveloped country like Nicaragua the incidence of tuberculosis is between 100 and 200 cases annually per 100,000 inhabitants. In other words, the incidence of that dread disease in our case is at least 2,500 cases per year.

In concrete terms, Comrade Cuadra Ayala indicated that so far this year reported cases of tuberculosis rose to 3,747, of which 60 percent are completely new cases and the rest persons who were not completely cured the first time they were treated.

However, by the end of this year, the number of cases caused by the Koch bacillus will be more or less equal to that of 1978, or 6,069. In other words, according to the report, there will be about 3,600 new cases.

The physician said that TB can attack any part of the human organism, although it most commonly attacks the lungs.

The principal symptom of the disease is a cough, and it is definitely a public health problem because it is so easily transmitted, although it must be pointed out that tuberculosis is definitely curable today and that the Ministry of Health has sufficient medication to treat those patients who have it. He indicated that the disease may take various forms, but that tubercular meningitis is among the most serious in children.

It is indisputable, he added, that in countries like ours, with many social problems, there is still a high incidence of tuberculosis.

He pointed out, on the other hand, that the WHO has clearly proven in recent years that the most efficient means of scientifically diagnosing positive cases of tuberculosis is through the use of the bacilloscopy, or the sputum test, after having found through technical studies that X-rays are not always reliable. It has also been proven that only 50 percent of X-ray tests shown positive results.

The foregoing indicates that the previous statistics, and even current ones, do not reflect the true positive incidence of TB, since many physicians continue to rely more on X-rays.

Notwithstanding all the foregoing, our interviewee emphasized that it is believed that the number of positive cases recorded in 1978 will remain steady this year.

He indicated that of the total mentioned, only 218 cases were from the department of Zelaya, where the mining centers are located, which proves that the theory that most tuberculosis cases in Nicaragua are found among miners is false, since the disease from which they suffer most frequently is silicosis.

At this time, the revolutionary government has available for treatment of the serious cases only the Aranjuez Sanatorium, with 165 beds, the 150-bed Rosario Lacayo Hospital in Leon and another center in Vilwascarma which is being remodeled to serve primarily the mining population.

The physician also revealed that the high incidence of tuberculosis in our country and in all the Latin American countries, in spite of the fact that they follow the medical attention programs recommended by the WHO, is not related to the quality and effectiveness of the drugs used, but is caused rather by the fact that the patients do not complete the treatment when they return home; on the contrary, when they feel better after a few months, they stop the medication entirely.

He said that treatment to cure a patient entirely extends over 1 to 1 and 1/2 years but that investigation reveals that 60 percent of the patients only take the medication for the first 6 months, and that this is because of the negative effects on our people of a series of cultural and educational factors. For that reason, then, those patients are never completely cured.

He said the government is currently carrying out a massive vaccination program through the Ministry of Health which, if it does not prevent contraction of the disease, will at least prevent its most serious forms, which result in tubercular meningitis among children and other serious forms among adults. The information and advice given by the Ministry of Health to our citizens through this newspaper, then, is that they go to the health centers and have their children vaccinated--even minors who are 15 years of age--although they may have been vaccinated before.

In addition, the government wants to vaccinate all children entering primary school, with the cooperation of the mass organizations, with a booster vaccination for all first and second grade children who have never before been vaccinated.

In this way, the entire shcool population of the country will have preventive vaccination. In addition, sputum tests will be performed on patients who are brought to hospitals or health centers with symptoms of respiratory diseases, such as cough, expectoration, etc., and who have had such symptoms for more than 2 weeks.

In 1981 there will be a special program for the mining centers, and finally, the system used up to now will be changed: personal, self-administered treatment and medication will be discontinued. Such treatment will be controlled and patients will have to go to the aid centers twice a week.

8735
CSO: 5400

NIGERIA

BRIEFS

RIVER BLINDNESS ERADICATION--A fresh effort to eradicate river blindness in Abuja, Federal Capital area, has been launched at Shedda by the Similiun Control Research Department. The Senior Inspector of Health, Similium Control Research Centre, Malam Mamud, told the New Nigerian that infected flies were recently found within the Federal Capital area. He said the launching of the anti-river blindness was also the discovery of infected flies in Mangol, Boboh, Gurara and Lokongoma streams. The research centre, which had been working jointly with the Similium Department at the University of Ife, had put a strong team to wipe out the disease from the area. The officer further said that the Federal health team at Shedda had surveyed 36 towns and villages last year, and 9,400 persons examined. Malam Mamud commended the Federal Government for providing modern equipment for analysis at the Shedda Centre for the eradication of the disease in the area. [Text] [Kaduna NEW NIGERIAN in English 31 Dec 80 p 9]

CSO: 5400

BRIEFS

NEW CASES OF CHOLERA--A total of 46 new cases of cholera have been reported since January 2, the Department of Health said yesterday. Most of the cases were reported in the Eastern Transvaal Lowveld. No new deaths were reported.--Sapa [Text] [Johannesburg THE CITIZEN in English 6 Jan 81 p 2]

CSO: 5400

BRIEFS

CHOLERA CASES--A total of 22 positive cholera cases and 133 suspected cases were reported from Mannar on 23 December. The number of deaths stands at six. The ministry which is taking caution to contain the spread of the disease in Mannar, has also rushed stocks of oral rehydration powder to the area. The disease which began in mid-November, in Chilavatural, has now spread to Thalavapadu, South Bar, Talaimannar, Manakalai and Poolamkulam, in the Mannar area, while in Colombo the cases were first reported from Maligawatte, the mental hospital, and Kollupitiya. It has now spread to Thalawathugoda and Ja-ela. However, treating patients with oral rehydration powder, has not yet become necessary in Colombo, as the cases of diarrhea are not so severe. [Colombo SUN 24 Dec 80 p 1]

MORE CHOLERA --The 93d positive cholera patient is an 11-year-old girl from Trincomalee. The girl who has been warded at the Tricomalee Hospital was confirmed as a positive case on December 31. Meanwhile the number of diarrhoea cases in Mannar has increased from 199 to 207, while the number of positive cases of cholera remains at 38. The rest, a total of 24, have been reported from the Anuradhapura prison, Jaffna, Colombo, Kolonnawa, Kankesanturai, Gampaha, Homagama and Ja-Ela. Health Ministry Secretary B.C. Perera said the ministry was worried about the outbreak of the disease at intervals in several parts of the country. [BK120317 Colombo SUN in English 2 Jan 81 p 1]

CSO: 5400

TANZANIA

BRIEFS

CHOLERA PREVENTION--Musoma--The Mara region has taken precautionary steps in an effort to prevent cholera, which is believed to have killed two persons and hospitalized several others in the neighboring district of Ukerewe, Mwanza region. The steps include banning the roasting of meat and sale of fruit in [name indistinct] village on the border of Ukerewe district, Mwanza region, and Bunda district, Mara region. [Text] [Dar Es Salaam Domestic Service in Swahili 1700 GMT 4 Jan 81 EA]

CSO: 5400

INCIDENCE OF TUBERCULOSIS CALLED HIGH

Bangkok TAWAN SIAM in Thai 19 Nov 80 pp 1, 2

[Article: "Tuberculosis Has Seriously Afflicted 500,000"]

[Text] More than 500,000 people in Thailand have been found to have tuberculosis and over 100,000 can transmit the disease to others. Only 35 percent of the pre-school age children in the country have been immunized against this disease. There is, therefore, still a high incidence of this disease. Doctors say that the reason that there are still so many people with this disease is that fewer than half of those afflicted have received the full amount of drugs stipulated.

Concerning this, Dr Songkhram Sapcharoen, the secretary general of the Tuberculosis Prevention Association of Thailand, which is supported by the king, has disclosed that doctors have found that approximately 600,000 people in Thailand have tuberculosis. And of these, approximately 140,000 are capable of transmitting the disease to others. This is because, at present, only 27 percent of those who have tuberculosis in Thailand have been treated. At the same time, only 39 percent of the pre-school age children in the country have been given BCG vaccinations to protect against infection. Thus, the rate of incidence of tuberculosis is high even though the government and private sectors, especially the Ministry of Public Health and the Tuberculosis Prevention Association of Thailand, have tried in every way possible to control this disease.

Dr Songkhram also stated that one reason that the rate of incidence of tuberculosis is still so high is that fewer than half of those afflicted with tuberculosis have received the full amount of drugs stipulated. Because, it appears that, when the symptoms begin to improve or when the symptoms have completely disappeared, they stop the treatment. This leads to a relapse or causes the disease to become resistant to the drugs and the government must spend even more money in treating such people.

Dr Songkhram stated that it takes 12 to 18 months to cure a person who has tuberculosis, or 2 to 3 years if the disease becomes resistant to the drugs, and that treatment for some cases costs 20,000 to 30,000 baht.

11943
CSO: 5400

DRUG-RESISTANT MALARIA STRAIN WORRIES HEALTH OFFICIALS

Bangkok SIAM RAT in Thai 24 Nov 80 pp 1, 12

[Article: "A Drug-Resistant Strain of Malaria From Which People Die Easily Is Spreading Seriously"]

[Text] The Ministry of Public Health is worried by the spread of malaria, the incidence of which is increasing greatly at present. The strain is resistant to drugs, and, when it reaches the brain, it can cause death.

Dr Nadda Siriyaphai, the director-general of the Communicable Disease Control Department, Ministry of Public Health, has disclosed that, concerning the malaria situation in Thailand, the number of cases this year is much higher than last year. During the past 10 months, the number of people who have come down with malaria is 20,000 greater than the number afflicted at the same time last year. The number for the entire year last year reached approximately 300,000 cases.

Epidemics of malaria have occurred in the south, mainly from Prachuap Khiri Khan south to Narathiwat, in the east in Chanthaburi and Trat and in the north in Mae Hong Son.

As for why malaria is spreading, Dr Nadda said that the problem stems from the economic problems. The people must struggle to make a living in remote areas and it is difficult to prevent them from becoming sick. Besides this, there is also the problem of officials not being able to carry on disease control activities in various areas of the country for political reasons. For example, they may be kidnapped and held for ransom or they may be shot. Also, the people have not allowed officials to spray mosquito insecticide around their houses, claiming that it is dirty. Also, the mosquitoes have changed their habits. They no longer bite people inside houses but bite them when they go outside. Also, they no longer settle on the walls of the houses as they did before.

The director-general of the Communicable Disease Control Department stated that, at present, this strain of malaria is resistant to drugs. This has resulted in people becoming very sick and when the virus affects their brains they often die. Doctors have not yet found a modern drug that is effective against this strain except for using quinine, which is effective in only 70 to 80 percent of the cases.

11943
CSO: 5400

INTERNATIONAL, NATIONAL ASPECTS OF COMBATTING INFECTIOUS ANIMAL DISEASES

Budapest MAGYAR ALLATORVOSOK LAPJA in Hungarian No 10, Oct 80 pp 651-659

[Article by Prof. Dr Tamas Szent-Ivanyi, Academician's inaugural address]

[Text] In the interest of providing productive conditions in our domestic animal stocks—estimated to be worth about 150 billion forints—it is of decisive importance that our country was successful in avoiding more extensive epidemics since 1973. Namely, one has to consider that, in addition to the direct losses caused by the death of animals and by the drop in production, certain infectious diseases have become global factors considerably affecting the international trade of animal products. The importance of this can hardly be overestimated with our current, export-oriented agriculture. Namely, I must stress that, on a world-wide basis, the so-called animal hygienic quality is the determinant factor in the trade of animal products. In the following, I should like to give a more comprehensive rather than detailed picture of:

A) The international epidemic conditions with respect to the so-called exotic infectious diseases and the risks of introducing them, and

B) The effect of certain epidemic infectious diseases of endemic character—at times also occurring domestically—on animal raising and on limiting export as well as the possibilities of protection against them.

A

Within the last two decades, we have witnessed several events which greatly increased globally the danger of introducing enzootic diseases in regions previously free of them. Moreover, a long series of concrete examples call attention to the enormous danger presented by the so-called exotic infectious diseases to the animal stock of countries using advanced methods of animal raising.

In this context I am referring mainly to those infectious viral diseases which, having escaped from their endemic locations in Africa or Asia in recent years, have caused considerable losses in European and American countries with intensive animal raising practices.

I should like to refer to only a few of the more important factors which have contributed to the escape of the pathogens of these diseases from the endemic regions and have caused epidemics on an international scale or else have established dangerous epidemic foci in distant lands.

The following are important among the political-economic factors:

1) In African and Asian regions infected by so-called exotic viral diseases, numerous earlier colonial countries had been liberated and have joined the international economy. Many countries among them have considerable animal stocks. Their exploitation and trade on international markets is frequently a potential source of economic advancement for these countries.

In economically advanced countries, the increasing standard of living led to an increased demand for better nutrition, primarily for proteins, namely, meat. Demand for meat increased sharply in the oil producing countries of the Near East.

To satisfy the demands, meat exports were increased not only by the traditionally meat exporting countries (Australia, New Zealand, South America) but certain African and South-Asian countries also joined the international meat trade. These not only are infected with the pathogens of so-called exotic infectious diseases but their undeveloped animal health organizations could not guarantee that the spreading of these pathogens would be prevented. The meat importing countries of the Near East are particularly vulnerable to the danger of infection because these countries, in general, do not have sizeable animal stocks and, consequently, do not demand the same animal hygienic quality of meat imports as do the European and North American countries with advanced animal raising methods.

2) Among the factors in animal raising which, in recent years, have promoted the introduction of enzootic diseases, the following is an important one. In order to increase animal production, intensive work on genetic improvement is being conducted worldwide, frequently using species from distant areas.

Because of the introduction of sensitive cultured species, for instance, Eastern cattle pest has flared up in many countries of Central Africa and Southeast Asia where the local, primitive strains had greater resistance and acquired immunity against this viral disease. Through the introduction of European Merino sheep, bluetongue has flared up in South Africa and has spread subsequently to the north of this endemic area.

I must mention it here that many countries with advanced animal raising techniques —Hungary among them--are unable to grow the feed for their animal stock. Therefore, the increase in animal raising was accompanied by an extensive international trade in feeds, especially protein fodders. Many countries of the tropics and subtropics have entered the international trade of meat and fish meal, soybean, peanut and other protein fodders in which infection is endemic for several exotic animal diseases.

3) Last but not least, I must mention that the danger of introducing infectious animal diseases has considerably increased with the advances in transportation,

primarily with the development of air transport. It has connected to international traffic many areas infected with certain diseases which earlier posed no danger to other parts of the world because of their isolation. In this context, the increasingly widespread development of international tourism, with its potential danger of transferring certain animal pathogens, must also be increasingly considered in the future. The actual risks involved will be discussed later with factual examples.

Among the infectious animal diseases referred to as exotic, certain viral diseases pose particularly high risks. Their pathogens generally retain their infectiousness in cooled and frozen meat for a longer time than the eating quality of the meat can be preserved under such conditions. Therefore, as confirmed by international experience, slaughterhouse, meat industry and kitchen wastes, including the kitchen wastes of airplanes, boats and dining cars, pose a particularly great danger of spreading pathogenic animal viruses.

In controlling the spread of infectious animal diseases, the precise and consistent adherence to general surveillance and hygienic regulations, and constant controls are of fundamental importance. Under the current political, economic and market conditions described previously, the most important step is to control the traffic at international travel points such as border stations, airports, harbors, to neutralize their wastes preferably at the site, to destroy the food wastes of international tourism primarily on campgrounds, to uphold the ban on camping in non-designated areas, to ensure the strict isolation of large-scale animal raising enterprises and their separation from small-scale farms, etc.

However, there is a distinct difference in the causal, epidemiological and immunological circumstances of the individual viral diseases. Great advances have been made in their elucidation mostly because of the rapid progress in virology and immunology during the past two decades. These advances can be effectively utilized for controlling certain viral infections in practice. However, there also are infectious diseases for which no effective specific control procedures are as yet available. African swine fever is an example.

In the following:

1) Contagious hoof and mouth disease

2) Eastern rinderpest

3) African swine fever and

4) Bluetongue

will be used as examples to demonstrate the current epidemiological state of some exotic viral animal diseases, the risk of their introduction and the possibilities of prevention as reflected by the newest data and scientific discoveries.

1) The danger of contagious hoof and mouth disease is increased in part by the extreme diffusibility of its pathogen belonging to the genus Aphtovirus (Picornaviridiae), and in part because it has seven known types of antigen which

provide immunity only against homologous type strains and do not protect against other types. Within these types, there are numerous subtypes with partial differences in antigen.

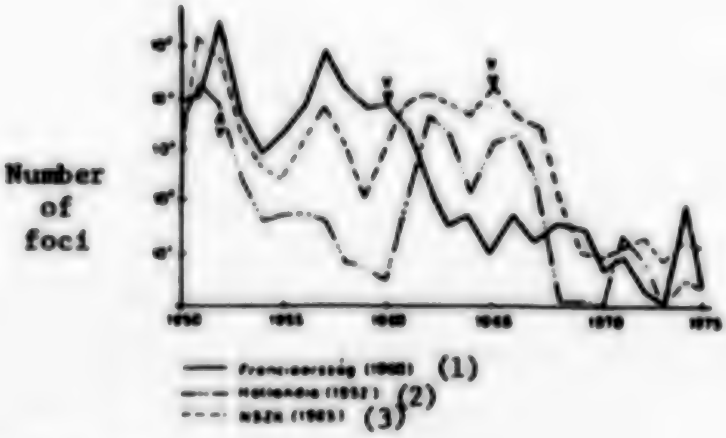
Before World War II, hoof and mouth disease epidemics had regularly swept through our continent at 6 to 8 year intervals causing severe losses through the massive death, weight loss and reduced milk production, etc. of susceptible animals (ruminants, swine).

Since the 1930's, the regular use of inactivated vaccines has stemmed the spread of these epidemics and has reduced the losses. However, the necessary yearly repetition of inoculations with inactivated and polyvalent vaccines is a serious economic burden.

The epidemic curves of West European nations show that regular vaccination can result in a considerable and lasting reduction of infectious foci only if the annually repeated inoculation of every cattle is introduced over a large and contiguous geographic area (graph 1). On the graph, the V sign indicates the date of introducing vaccination and the peaks represent the maximal number of infectious foci, on a $\log_{10}$ scale, observed in that year.

It was also found that the virus can remain latent for several months in the surviving and infected, vaccinated animals. Such virus carrier animals can be sources of infection. Another difficulty is presented by the fact that, among the animal species susceptible to hoof and mouth disease, only the ruminants can be immunized for a half to one year period. Even the newest, so-called swine-specific vaccines will provide only a few weeks of protection to swine and only to animals vaccinated as adults.

Graph 1. Occurrence of Hoof and Mouth Disease in Western Europe



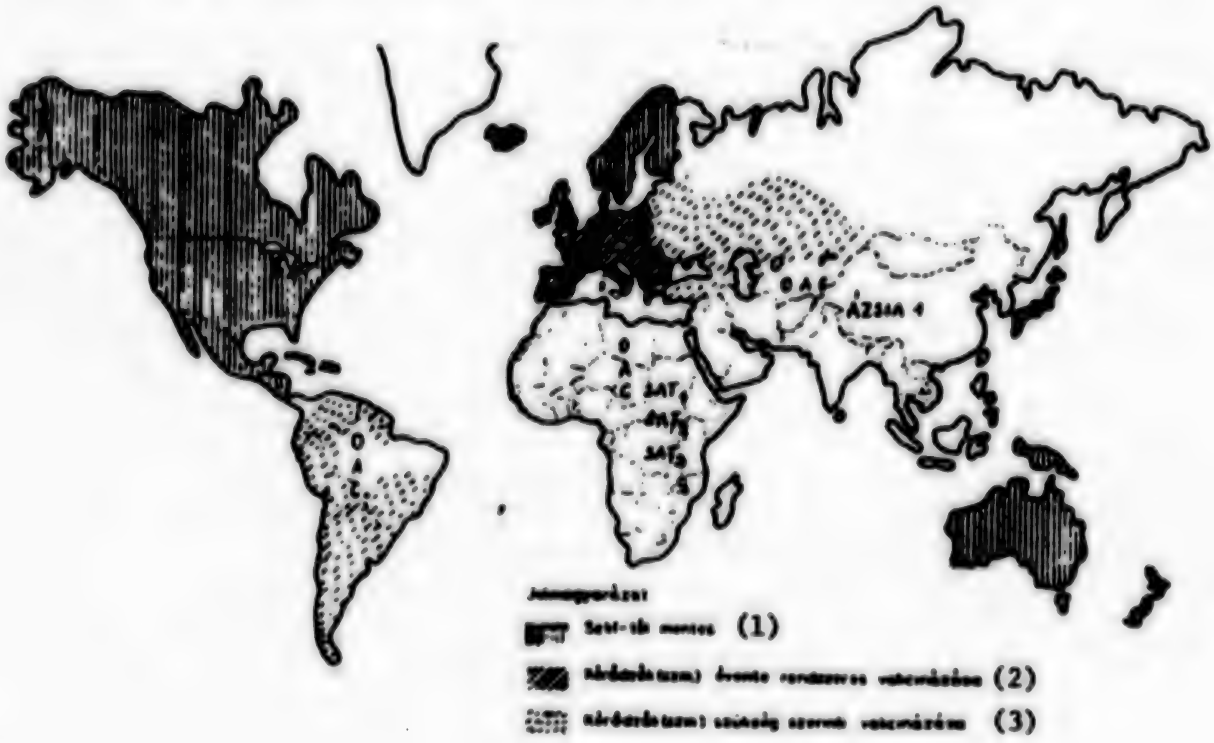
Key:

1. France (1960)
2. Netherlands (1952)
3. Federal Republic of Germany (1965)

Therefore, for decades, total elimination of the virus has been the goal of certain countries. These countries do not even permit the use of vaccines for fear that, under the umbrella of vaccine protection, infectious material may unobtrusively settle in their stocks.

At present, the more than a decade long absence of infection on the Central and North American continent north of the Panama Canal, in Australia and Oceania, in Japan and, of the European countries, in the four Scandinavian ones, England and Ireland, has been maintained with a complete ban on vaccination (map 2).

Map 2. Epidemiological State of Hoof and Mouth Disease



Key:

1. Free of hoof and mouth disease
2. Regular, annual vaccination of ruminants (cattle)
3. Vaccination of ruminants (cattle) according to need

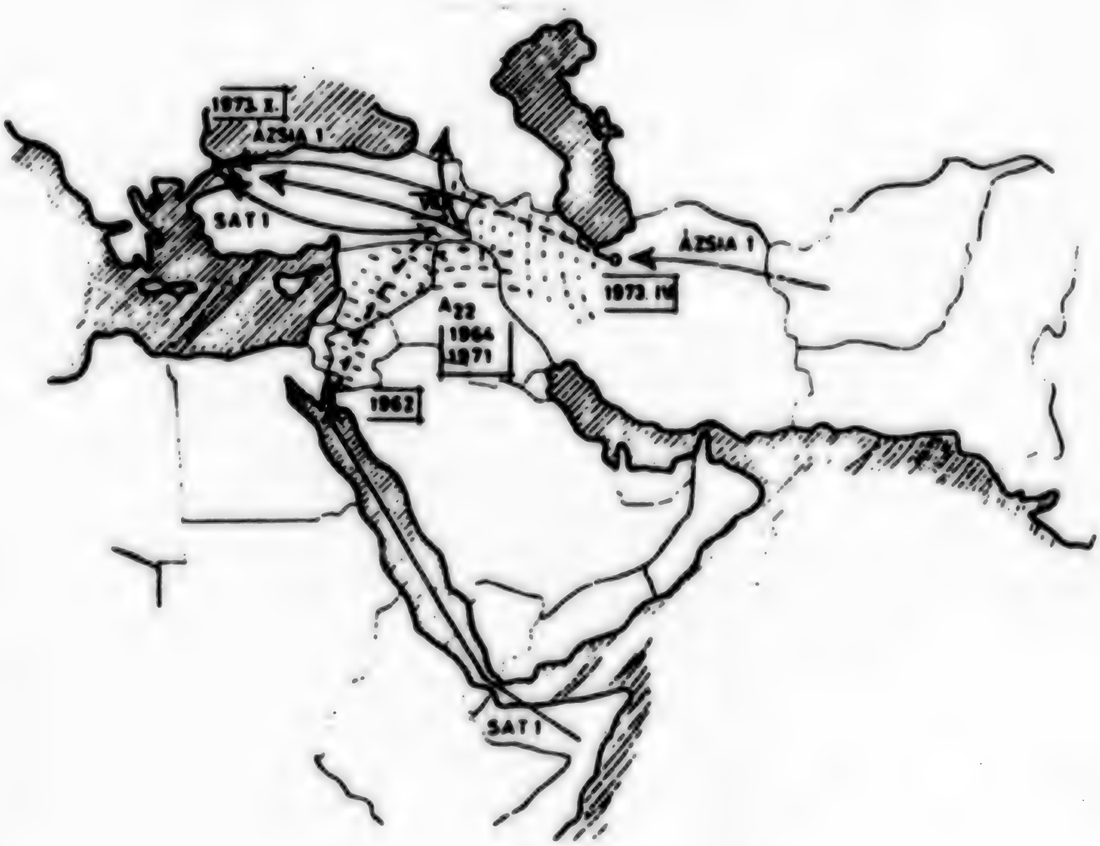
Therefore, it is understandable that, for example, the United States and Japan will import raw meat only from Australia and New Zealand which are also free of the disease. On the other hand, England has been maintaining its freedom from the disease, without vaccination, in spite of a few cases of infection carried into the country with meat imported from South America. Thereby it has been able to retain its considerable export of animals for breeding to North America, Australia and New Zealand. Recently, France also discontinued vaccination in the Charolais and Limousin breeding districts in order to meet the prerequisites for exporting breeding animals from its two important beef cattle varieties to the overseas countries mentioned.

A large part of continental Europe uses the classical OAC type trivalent vaccine to immunize its cattle stocks annually. Based on this, it is understandable that meat imports from South America, where only the identical types of infection occur, pose a lesser danger for this geographic region than import from Asia and Africa where the exotic SAT-1, -2, -3 and Asia-1 types are also present, and against which the European stocks are completely unprotected.

Recently, the increasing meat importation by Near-Eastern oil producing countries represents a considerable source of danger to Europe with respect to introduction of the exotic types and subtypes of the hoof and mouth disease virus. Namely, these countries have insignificant animal stocks and, therefore, assume lesser risks when they import animals on the hoof or meat from African and Asian countries which are infected with exotic types of the hoof and mouth disease virus.

During the past decades, Europe was repeatedly endangered by exotic types of the hoof and mouth disease virus introduced to the Middle East (map 3). Thus, in 1962, the SAT-1 virus was introduced to the harbor of Aquaba with cattle on the hoof from Somalia. It caused an epidemic and spread to the north reaching Turkey. From the eastern part of this country, it was carried to the slaughterhouse of Istanbul by cattle on the hoof shipped there in railroad cars, causing several foci of infection in the vicinity.

Map 3. Hoof and Mouth Disease Epidemics in the Near-East



During past years, the animal raising and slaughterhouse conditions in Turkey have repeatedly contributed to letting the exotic viruses reach the threshold of Europe. A large part of the nearly 14 million cattle and 60 million sheep and goat stocks of Turkey are raised near the East-Anatolian mountains while the export slaughterhouses are in Istanbul.

In 1964 and 1971, a particularly troublesome subtype of the A type virus, referred to as A-22 and designated exotic, spread from the Near East to Turkey and to the district of Istanbul by the previously mentioned route. Finally, in April 1973, the Asia-1 type virus reached Teheran with sheep on the hoof from Afghanistan. Spreading from here westward, it reached the Turkish border by July and, again via railroad shipping of animals on hoof, it appeared near the slaughterhouse of Istanbul in October.

In all these cases, introduction of the dangerous viruses to Europe was halted on its threshold by rapid and effective international actions organized by the FAO [Food and Agriculture Organization].

By slaughtering the infected animals and by regular vaccination against the particular types of virus in the Turkish, Bulgarian and Greek regions traversed by the infection, spreading of the epidemic to other parts of Europe could be averted. One can imagine the extent of the problem, for instance during the 1973 action, when, in the defense of Europe, strictest travel restrictions had to be introduced precisely at the time when great masses of Turkish guest workers were returning to Western Europe by [private] cars from their vacations.

The effectiveness of international cooperation is confirmed by the fact that sofar it has been possible to localize the infection in Turkey in every case.

The maintenance of the areas free of hoof and mouth disease, the success of widespread vaccination programs and the effectiveness of certain international programs prove that the knowledge about hoof and mouth disease virus and its epidemiology did serve as a basis for effective defense actions. Because of the pluralistic nature of the virus, the costs of vaccination and the relatively limited amount of achievable protection, however, total eradication of this disease in world cattle stocks is hardly a realistic plan in the foreseeable future.

2) From Central Asia, Eastern rinderpest has endangered the animal stocks of Europe for centuries, especially as a result of movements occasioned by war.

In Western Europe, the last more serious epidemic developed after the Prussian-French war of 1870-71 but it was completely eradicated in Europe before the turn of the century (by 1881 in Hungary). However, it was reintroduced in Bulgaria during the Russian-Turkish war of 1912-13, in Poland and Belgium following World War I, and in the Rome zoo, with wild animals, in 1949 (map 4).

At the end of the last century (1889), also from Asia, the "Horn of Africa" (the area of today's Somalia and Ethiopia) became infected and, within less than a decade (1896), the epidemic swept through the Eastern coast of Africa, rich in cattle and susceptible, wild ruminants, all the way to South Africa. With a

90 percent mortality among susceptible animals, it was perhaps the most destructive enzootic in history. Since then, the infection has become endemic in the central parts of Africa.

Fortunately, Eastern cattle pest virus, belonging to the Paramyxoviridiae family, proved to have a uniform antigenic structure. Instead of the earlier, capric acid-treated virus vaccine, the recently introduced tissue culture vaccine proved to be not only completely safe and inexpensive to produce but, because of its outstanding immunizing ability, inoculated adult cattle can be furnished with lifelong protection.

Having this vaccine, the FAO organized its most extensive epidemic control action ever, between 1962 and 1975, in the region South of the Sahara, to eradicate Eastern rinderpest (map 5). In the course of this program, 80 million cattle were vaccinated in 22 countries in an action costing $30 million. It eradicated this important epidemic in several countries of the region. Unfortunately, because of the hostilities between Somalia and Ethiopia the program designated JP15 was interrupted in this region of Africa especially rich in cattle. The forced, extensive transfer of animals associated with the memorable draught in the Sahelian region, lasting several years during the mid-seventies, also led to the sporadic appearance of infectious foci (map 4).

However, the JP15 action underlined the realistic possibilities of eradicating globally the Eastern rinderpest even in regions abundant in wild ruminants. Namely, when infection was eradicated from the cattle stocks of the region by general vaccination, Eastern rinderpest also disappeared, simultaneously, from the rich wild reserves of the African nations in East Central Africa (Kenya, Tanzania, Uganda). Namely, in the case of Eastern rinderpest, prolonged carrying of the virus need not be reckoned with. This is an additional advantage in prevention when compared, for instance, with hoof and mouth disease control.

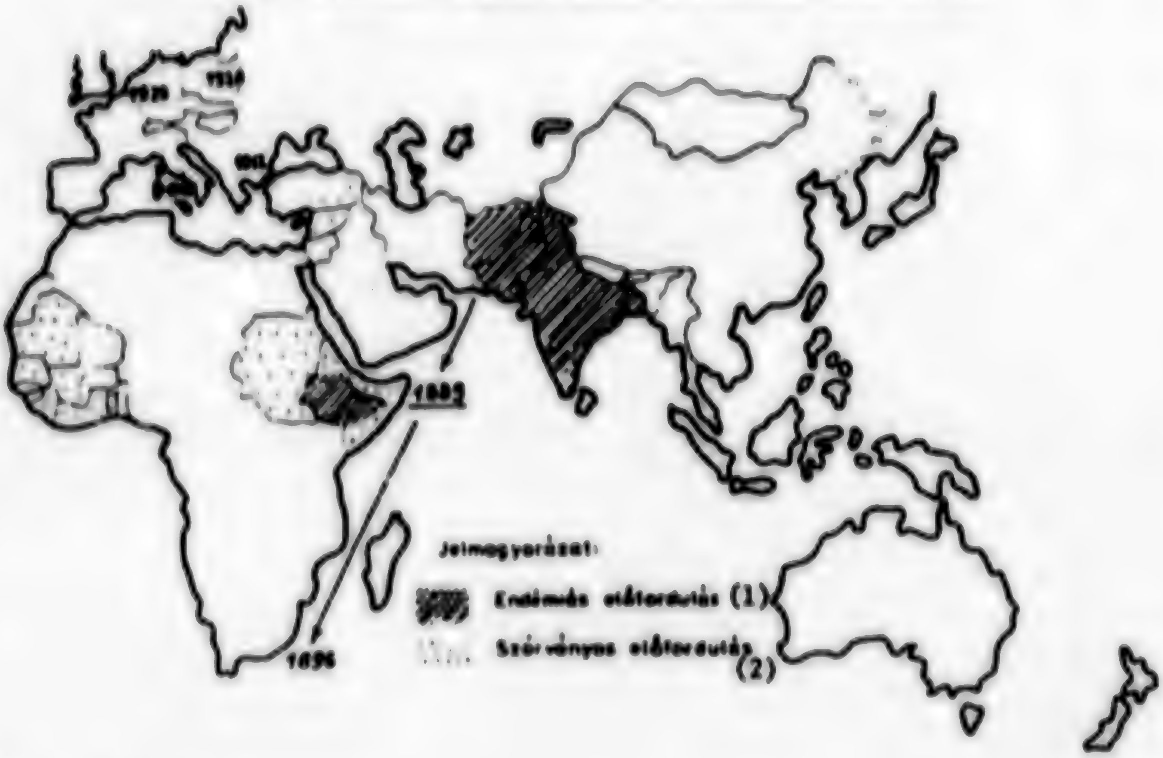
3) During the past two decades, the swine raising regions of the world have been in a steadily increasing danger from African swine fever. The disease was first recognized in 1921 in the endemically infected parts of tropical Africa South of the Equator (map 6)

The disease is unusual in the sense that it is being kept in existence, in the endemic region, by the wild swine (Phacocoerus) population. The virus causes no clinical symptoms in them but they excrete it mainly in the course of throwing their young. Only domestic swine (Sus scrofa) and its ancestor, the European wild pig are susceptible to the virus of this disease. The epidemic is mostly very acute among European swine brought into endemic African regions, causing nearly 100 percent mortality.

Individual foci of infection have also been detected in regions of Africa far removed from the endemic areas (map 6).

In Europe, the disease first appeared in 1957, in the Lisbon region. The virus was presumably transferred with the kitchen refuse of airplanes arriving from Angola, still a Portuguese colony at the time. The disease was first thought to

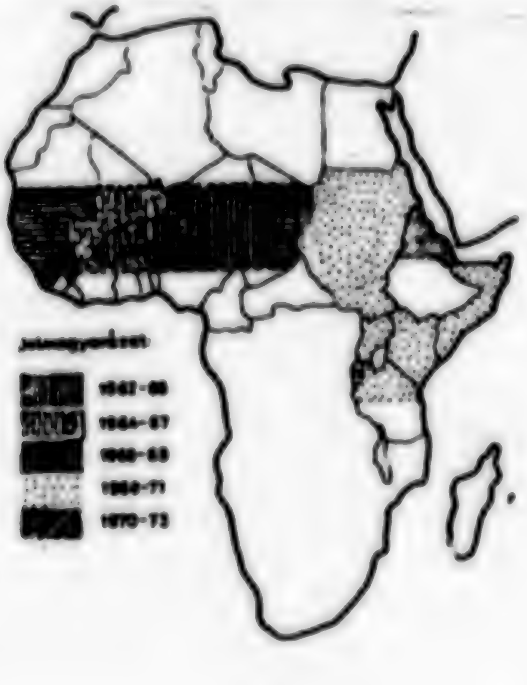
Map 4. Epidemiological State of Eastern Rinderpest



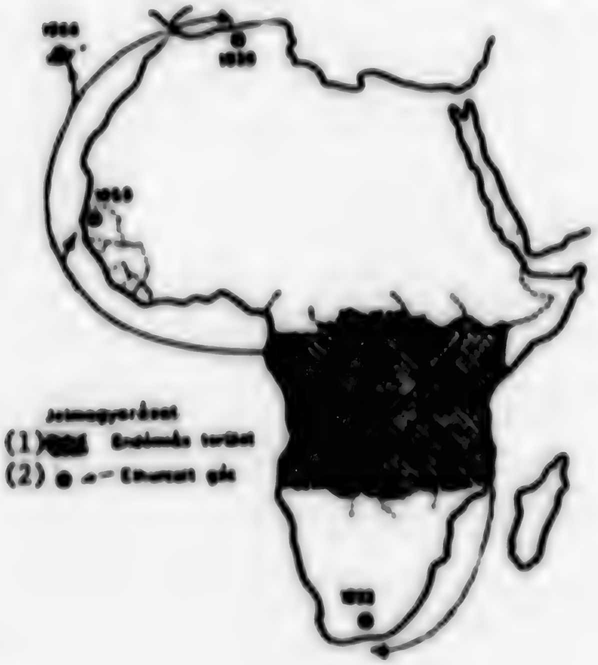
Key:

1. Endemic occurrence
2. Sporadic occurrence

Map 5. The JP15 Action Against Eastern Rinderpest

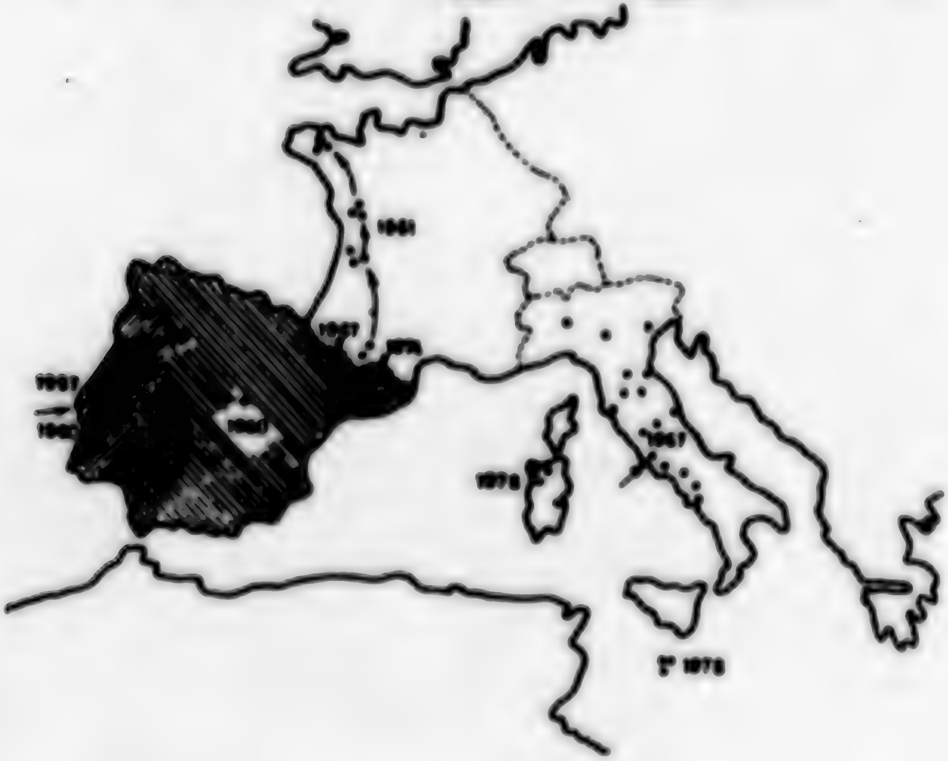


Map 6. African Swine Fever in Africa



Key:
1. Endemic region
2. Transmitted foci

Map 7. Epidemic Foci of African Swine Fever in Europe



be classical swine fever. Only after serum and vaccine treatments had been unsuccessful, did they diagnose and eradicate the disease by killing and destroying about 17,000 swine.

In April 1960, the disease was again detected in the Lisbon airport area. This time, however, the immediately instituted regulation could not stem the spread of infection. A month later, the infection also appeared in Spain and also spread rapidly there. Ever since the infection has been endemic in both countries in spite of the fact that, using strict slaughtering regulation, they have made severe economic sacrifices in the interest of eradication.

From Spain, the virus was transferred to neighboring France three times, in 1964, 1967 and 1974. In 1964, because the disease was detected within a short time in 10 villages of 4 counties, stricter regulations have also been instituted against classical swine fever. Namely, uniform and immediate slaughter has been prescribed when either African or classical swine fever is suspected. From samples obtained at this time, differential diagnosis of the two diseases was made later. It is obviously due to this and to the strict control of traffic that, in spite of the common border, the infection brought into the border region of the country was successfully eradicated at its primary site both in 1967 and in 1974.

In 1967, the virus was also brought into Italy where the first sites were noted in the Rome airport district. Within 3 months, it reached Naples to the south and, in the north, 198 foci of infection were found in 15 provinces of Milan. These were eradicated within 6 months at a cost of slaughtering nearly 102,000 swine.

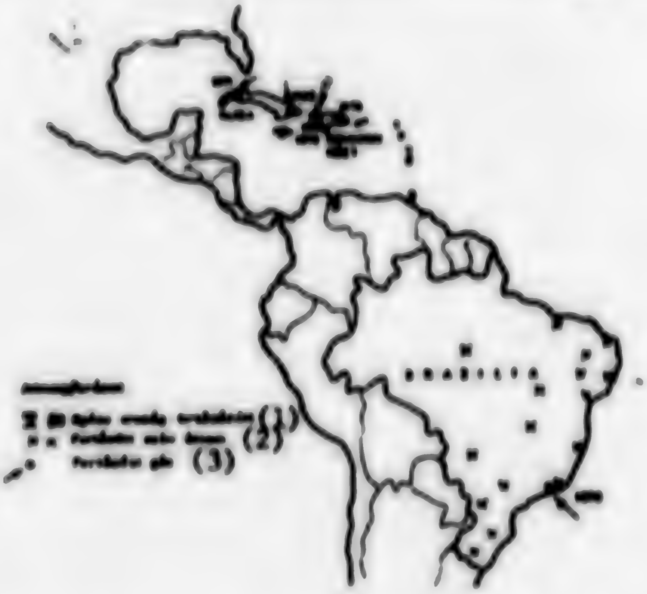
In 1978, two Mediterranean islands, Malta and the Italian Sardinia were infected. On the islands of Malta (Malta, Gozo, Comino), the entire swine population (about 80,000) had to be sacrificed in 1979 to get rid of the infection. From a breeding center established on Comino Island, repopulation of the islands with swine free of infection was started in early 1980. In spite of the strict regulations, new foci have been found in Sardinia, with large time intervals, as late as in past months.

In the Western Hemisphere (map 8), African swine fever manifested itself first in 1971, in Cuba, near Havana. Institution of controls was delayed also here because the disease was first thought to be classical swine fever. After correct diagnosis, 536,000 swine (29 percent of the entire stock) had to be killed in the Western half of the island nation to eradicate the infected material.

In the spring of 1978, the disease was diagnosed in Brazil, near Rio de Janeiro. Diagnosis was again delayed because of a mixup with hog cholera and, therefore, the infection was scattered to 16 federal states. In spite of the institution of strict regulations, the infection is spreading over a greater geographic area although, in recent months, the number of infectious foci within the originally infected, Southeastern, intensively agricultural region has been on the decrease.

African swine fever appeared, also in 1978, in the Dominican Republic of the Caribbean Sea and, in 1979, spread to Haiti on the Western half of the island.

Map 8. Foci of African Swine Fever Infection in the Americas



Key:

1. Entire country infected
2. Infected federal state
3. Focus of infection

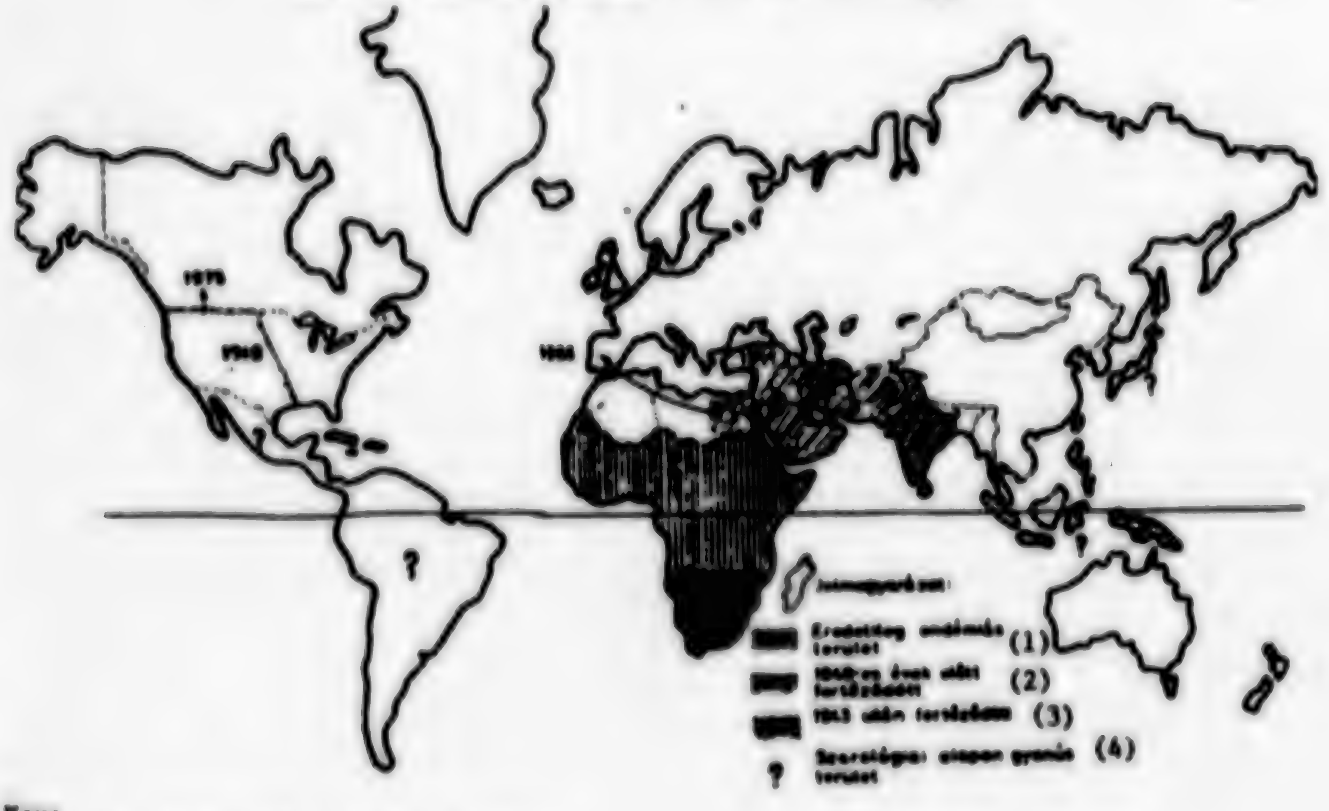
In cooperation with the states of the American Continent, a plan was developed for liquidating the entire swine stocks of the island occupied by the two countries. However, in view of the fact that an estimated 2.5 million swine are involved and certain parts of the island are nearly inaccessible, the planned action does not promise rapid success in spite of its high costs.

Finally, in February 1980, African swine fever was diagnosed on the Eastern end of Cuba, in the Guantanamo region. Using the results of earlier experiences, effective measures were taken to eliminate the foci.

The international epizootiological picture of African swine fever is made more complicated today by the formation of new endemic areas in the world. In addition to the original endemic region in Central Africa, namely on the Iberian Peninsula in Europe, in Brazil on the Western Hemisphere, and in the Dominican Republic and Haiti on the Caribbean Islands. In the African, endemic region, final eradication cannot be contemplated with our current knowledge because the infection chain there is maintained by the widely distributed wild swine (Phacocoerus). Eradication from the more recently developed infectious regions would be possible by applying strict management procedures in the framework of widespread programs. Its organization and financing is the current goal of international organizations, mainly of OIE [expansion unknown] and FAO.

The danger of spreading African swine fever is increased by the high resistance of its virus, belonging to the Iridoviridae family. Protection against the

Map 9. Epidemiological State of Bluetongue



Key:

1. Original endemic region
2. Infected before the 1940s
3. Infected after 1943
4. Region suspected on the basis of serology

disease is made difficult because of the steady changes in the complex antigen pattern of the virus. All efforts extended so-far at developing specific protection against it have remained unsuccessful. Once the infection is introduced, the only solution today is still to slaughter the afflicted stocks and to destroy all infected materials. Namely, once the infection becomes endemic, it perpetuates economically unbearable losses and cuts off the afflicted countries from the possibility of exporting any unprocessed animal products, as shown by the example of Portugal and Spain over the past 20 years.

4) Bluetongue is mentioned last. It has also, justifiably, gained attention within the last few years (map 9).

The disease has become important in the region of the South African Union and gained the attention of specialists at the end of the 19th century when fine-wool Merino sheep were imported to this region. As opposed to the genetic resistance and presumably acquired immunity of the local, primitive sheep strains, the Merinos responded to the infection with symptoms of acute viremia accompanied by high mortality.

Until World War II, the disease was limited to the part of Africa south of the Sahara. However, in 1943, it appeared on the island of Cyprus, in the following years it spread eastward to India and, in 1956, it also entered Spain. In a manner as yet unknown, the bluetongue virus was introduced to Texas and since has spread to 18 western states of the United States. So far it is resisting all methods of attempted eradication.

Recently, an as yet unknown serotype of the virus was isolated from mosquitoes collected in the northern part of Australia. Understandably, this presents very great danger to the 131 million sheep stock in which the disease has not yet been diagnosed.

It was also discovered recently that not only sheep but also cattle and wild ruminants can be infected. Cattle are frequently symptom free carriers but clinical manifestations of the disease were also observed in response to the effect of virus strains adapted to this species. In 1975, the disease was transmitted to a western province of Canada with latently infected cattle. However, after serological confirmation of the infection Canada reestablished its freedom from infection by eliminating several thousand animals.

The disease is caused by a virus belonging to the family Reoviridiae of the genus Orbivirus which is spread by various mosquitoes and thus the development of individual epidemics is related to the swarming of the intermediary host mosquitoes. Currently, at least 16 serotypes of the bluetongue virus are known with different antigen structures. The virus strains were successfully attenuated in chick embryos and in tissue cultures. Vaccines were produced in this manner. However, these live virus vaccines are not without concern because the attenuated virus may cause reproductive-biological disturbances and the intermediary host mosquitoes may spread the vaccine virus which can cause, at least, diagnostic confusion.

Knowing the current spread of the disease and that, in addition to sheep, cattle can also harbor and spread the infection, we have to be careful not to introduce this disease with animals imported for cross breeding to alter the strain.

B

Under the present economic and animal breeding conditions, infectious diseases well known from our own, domestic experiences deserve increased attention. Recently, through efforts of decisive significance, we succeeded in eliminating some of these or considerably decreasing the damage caused by them.

Among acute viral diseases, I am referring, for instance, to swine fever, viral diarrhea of piglets (TGE), sheep pox and fowl pest, the reintroduction of which is a constant possibility and which are less frightening than the exotic diseases perhaps only because we have adequate experiences with and effective vaccines against them. Using these, losses can be reduced considerably in the case of their reintroduction.

However, on the basis of recent experiences, perhaps the greatest danger is presented by the widespread complacency which developed in response to the successes of recent eradication actions. Moreover, with the recent economic difficulties, some even view as unnecessary expenditures the setting up of general infection control establishments, the professional maintenance of the existing ones and the adherence to regulations. Neglecting these can have bitter and expensive consequences should any infectious material be introduced. I must refer to recent instances of introducing swine fever and fowl pest or to the fact that several European countries are still infected, for instance, with TGE of swine which caused very heavy losses in their breeding stock between 1963 and 1973.

From the aspect of transferring infectious diseases which get reintroduced periodically, the widespread use of hybrid breeding techniques in swine raising provide conditions which increase this danger. The breeding of hybrids is accompanied by increased traffic in breeding animals both among individual enterprises and on an international scale, and is accompanied by a transfer of the most variable pathogens both in the domestic and international context.

I can cite, for example, that a whole series of viral fowl diseases has spread throughout the world, demonstrably as an accompaniment of certain hybrid strains. Within the last 20 years, this has led to the addition of at least a dozen viral fowl diseases to our epidemiological subject matter which have spread through the world with the importation of breeding material.

It can also be attributed to the extensive transfer of animals accompanying hybrid breeding that there has been a sharp increase in the importance of certain worldwide infections of endemic character--also widespread domestically. Therefore, scientific research has also been focussed on them. Within our modest means, we have also joined these studies using the tools of bacteriology, virology and immunology.

Under large-industrial swine raising conditions, for instance, enzootic pneumonia, disfiguring rhinitis and swine dysentery attained a considerably greater role than before. Under the old, closed system of raising, by regulating environmental hygiene and feeding conditions, these diseases—although remaining—did not cause significant losses just as they do not have any great significance today on isolated, small farms. However, because of the increased animal transfer and thereby the continuous meeting of stocks in heterogeneous states of immunity, these diseases are erupting. It was shown mainly by the introduction of the SPF technique that, in the etiology of these diseases, a primary role is played by pathogens of mainly bacterial character having a defined virulence factor. These cause acute and severe diseases wherever there is an intermixing of stocks having heterogeneous infections and states of immunity. Our current investigations are directed toward improving our knowledge about these pathogens, elucidating the immune mechanisms involved, and perfecting the preventive and therapeutic methods.

The liberation of animal stocks from certain pathogens represents a higher degree of defense against infectious animal diseases. Both public health and economic interests justified the elimination of tuberculosis and brucellosis from cattle stocks. We are now approaching the end of this work. We eliminated breeding paralysis and malleus from our horse stocks, swine fever and TGE from our swine stocks and sheep pox from our sheep stocks. However, both our domestic economic and export interests urge us to rid our swine stocks from leptospirosis, Aujeszky's disease and from quite a few other, endemically occurring infections. Today, it is impossible to sell fowl breeding material on international markets unless it is free from typhoid and microplasmosis although only the initial steps have been accomplished with respect to freeing our fowl stocks from microplasmosis. Nevertheless, it was successfully demonstrated that we have adequate knowledge about etiology, diagnosis, pathogenesis and epidemiology to make further progress also in this endeavor. Direct economic interest will soon become the pressing demand which must lead to economic and organizational decisions to gradually expand the eradication activities so that we can insure an adequate animal hygienic quality in our breeding animals and animal products and thereby contribute to increasing export readiness and no less to the profitableness of domestic production.

Under the present international and domestic conditions of the economy, animal raising and commerce, the broad scale of infectious animal diseases has acquired new significance and was promoted to a determining factor in export trade. It is due to our improving animal hygienic conditions that we were able to enter the most demanding Western European, North American and Japanese markets with our animal products. However, with the increasing competition on the international market, protection against infectious diseases and the gradual expansion of elimination programs are the prerequisites for maintaining the economical and marketable features of our animal products. Therefore, it would be serious shortsightedness to limit these in the interest of thriftiness.

2473
CSO: 5400

BRIEFS

FOOT AND MOUTH DISEASE--The Brazilian Rio Grande Do Sul state agriculture secretariat has reported that Brazil, Argentina and Uruguay will carry out a joint campaign against foot and mouth disease. Experts in this sector will hold a meeting in Uruguayana in February to discuss the guidelines of this task. [Montevideo Radio El Espectador Network in Spanish 1600 GMT 26 Dec 80]

CSO: 5400

INCIDENCE OF RABIES IN CSSR INCREASING

Prague ZEMEDELSKE NOVINY supplement ZEMEDELEC in Czech 17 Dec 80 pp 3-4

[Article by Oldrich Matouch, doctor of veterinary medicine, candidate for doctor of science, director of the National Referral Laboratory for Rabies, State Research Institute at Liberec-Vratislavice on the Neisse River: "The Current Status and Prospects of the Battle Against Rabies"]

[Text] Rabies is one of the dangerous and serious diseases to which the veterinary and health services and, as the implementing agencies, hunting organizations, must devote constant attention. Each human injury or contact with a rabid or suspicious animal signifies a deadly danger which can be prevented only by the timely administration of a preventive vaccine. There is therefore a need for the investigation of each case and for close cooperation between the veterinary and health services. From the viewpoint of prevention, however, it is essential to direct our efforts at the efficient elimination of all sources of this disease on our territory.

The development of infectious rabies in Europe has demonstrated a very unfavorable trend in recent years. Increasing numbers of animals have shown positive tests for rabies, and the disease has spread to new regions. In 1978, 16,839 cases of rabies were reported by 16 European nations. This figure increased to 18,147 in 1979, and for the first half of 1980 there were 9,716 reported cases of rabies. In most countries rabies is predominant in wild animals, which account for 75 percent of the reported cases, while domestic animals and livestock account for the remaining 25 percent. A similar unbroken unfavorable trend in the incidence of infection has been noted in the CSR since 1975.

Fifteen Species Affected

Between 1975 and 1979 a total of 2,557 cases of animal rabies were confirmed by laboratory analysis. Of these, 2,417 cases (94.4 percent) occurred in wild animals, and 146 (5.5 percent) in domestic animals. Rabies was diagnosed in 9 species of wild animals and in 4 species of domestic. Of the wild animals, rabies occurred among foxes (2,302 cases), which occupy an important position in epizootiology and represent the main vector of rabies on our territory. Above all, what is serious is the fact that the number of foxes with positive tests in individual years has been showing a constant and significant increase. By 1979 this amounted to a 221 percent increase compared with the 1975 figures. Foxes account for a significant number of the positive rabies tests, and represent roughly 90 percent of all cases of rabies. Among domestic animals the incidence of rabies has remained at a low level, even tending toward a decline as is the case with, for instance, dogs (see table on below).

Number of Laboratory Verified Rabies Cases in CSR, 1975–1979

Animal	1975	1976	1977	1978	1979	Total	percent
Fox	297	390	387	571	657	2302	90.03
Roebuck	3	11	10	16	17	57	2.23
Badger	1	4	7	9	7	28	1.09
Marten	2	7	4	4	4	21	0.82
Red Deer	—	—	1	—	1	2	0.08
Weasel	—	1	—	—	—	1	0.04
Wild Sheep	—	—	—	1	—	1	0.04
Skunk	—	—	—	—	4	4	0.15
Fallow Deer	—	—	—	—	1	1	0.04
Dog	4	18	9	11	8	50	1.96
Cat	11	7	15	19	15	67	2.63
Sheep	7	5	—	—	3	15	0.58
Cattle	—	1	—	4	1	6	0.23
Nutria	—	—	—	1	—	1	0.04
Goat	—	—	—	—	1	1	0.04
Total	325	444	433	636	719	2557	100.00

This favorable development confirms the efficacy of the required vaccination of dogs. The CSR is the only country which performs this service free of charge. However, there are a number of European countries where the situation is not so well in hand, in which there is a higher incidence of rabies and where there is a greater risk of a direct threat to humans. For instance, in Yugoslavia alone since 1975 there have been 21 deaths recorded from rabies. Where vaccination is only on a voluntary basis and the elimination of wild and semi-wild cats is very difficult, cats have come to occupy the most important position recently as carriers of rabies among domestic carnivores.

The incidence of rabies among livestock in the CSR is only sporadic and vaccinations are conducted in threatened regions according to local disease conditions.

In recent years no cases of rabies among humans have been recorded in the CSR. This makes us first in the world in this regard, a result achieved above all thanks to competent and efficient cooperation between the veterinary and health services. However, 23,909 cases were reported of humans injured by suspect animals, and more than 3,000 people have had to undergo preventive vaccination, which in itself is not without risk.

From Border Areas to the Interior

With regard to geographic location, the incidence of rabies from 1968 to 1975 was confined primarily to the border regions of Bohemia and North Moravia. For instance, in 1975 the centers of outbreaks of rabies were located in a total of 17 primarily border regions of the CSR. A year later 27 regions were affected and in 1977 the disease had spread towards the interior of the country, causing the number of infected regions to increase by 4. In 1978 the spread of rabies continued from the western border of the country to the interior and a total of 40 regions recorded cases of rabies. In 1979 the disease appeared for the first time as well in the South Moravia region in the districts of Gottwaldov and Uherske Hradiste. At the beginning of 1980 additional areas joined them--Blansko and Brno-venkov--which had previously been free of the disease. These were joined by the Bohemian regions of Jicin, Benesov, Prague-East, Kutna Hora, Ceske Budejovice, and Tabor. The highest incidence of natural centers of outbreaks of rabies continues to be in the West and North Bohemia regions, and recently the situation has also worsened in the Central Bohemian and North Moravian districts.

The documentary evidence for 1975-1979 clearly shows that rabies occurs in the CSR in its sylvatic form and that the dominant carrier is the common fox. The incidence of rabies in recent years in the CSR has increased continually due to the increasing incidence of the disease among foxes. The significant territorial spread of the disease (to more than 40 districts) increases the risk to the human population and to livestock. An eradication program must be focused on the consistent and permanent reduction of the fox population, as the chief carrier and source of the disease in our country.

Reducing this Disease

In 1969 the Ministry of Agriculture and Food of the CSR issued an edict, file number 05/1-127/69, concerning extraordinary measures for combatting rabies. This was the basis for the payment from central funds of [illegible] for every fox and badger delivered to the veterinary service. The project was intended to increase the interest in hunting and lead to a reduction in the large numbers of the main carriers of the infection. The subjects obtained in this way were to be given autopsies and used to identify new centers of rabies in the CSR, for a more precise identification of the topography and dynamics of the occurrence of rabies among foxes. Despite these financial incentives, hunting organizations did not fulfill the obligations assigned to them, and did not succeed in reducing the fox population by simply hunting it off. The situation demanded the employment of more efficient methods already successfully proven abroad, the gassing of fox dens when the young are being born.

The basic principles of the new methods for reducing rabies among wild animals are included in the directive of the Ministry of Agriculture and Food of the CSR, file number 615/73-3, of 4 April 1977, which modifies and supplements the 1969 edict of the Ministry of Agriculture and Food of the CSR concerning extraordinary measures for combatting rabies and tularemia. The bounty was raised to Kcs 150 and is paid only in those districts with an incidence of natural centers of rabies. The gassing of fox dens is employed as the most radical method, supplementing the bounty system. Detailed methodological guidelines have been published for this procedure as well, entitled "The Battle Against Rabies in Wild Animals" (District Central Committee, Pardubice, 1978) to serve the educational needs of wildlife management employees and members of the Hunting Union.

Hunting organizations, whose duties include wildlife management, are responsible for the gassing of fox dens. There is a reward of Kcs 100 for each eliminated den. The level of fulfillment of the "Directive of the CSR Ministry of Agriculture and Food" of 1977 varies greatly from district to district. Where hunting organization organizations consistently fulfill their tasks, results have been good. Regions where hunting and the gassing of dens are not at a sufficient level serve as a permanent source of foxes and thereby undermine the efforts of those who are adopting a responsible attitude toward the reduction of rabies in wild animals. The whole project of reducing the fox population, which stands at about 4 times its desired level, must be conducted in a unified manner over the whole territory of those districts with an incidence of natural centers of rabies, and with a maximum level of responsibility on the part of all involved agencies. The goal in order to eradicate rabies in the CSR, remains the lowering of the fox population to a density of 2 foxes per 1,000 hectares of hunting area. This condition will limit the further spread of rabies and at the same time will preserve the common fox as an important member of our fauna for the fulfillment of its biological function in nature. It is necessary to take measures and, above all, to direct the efforts of all hunting organizations in the territory of the CSR to this objective.

9276
CSO: 5400

BRIEFS

CATTLE VACCINATIONS--A recent month-long cattle disease preventive campaign resulted in the vaccination of 118,566 heads of cattle in Timbaro district of Shoa region. The cattle were vaccinated against the most prevalent diseases such as rinderpest and pleuro-pneumonia. According to the leader of the vaccination team the campaign will continue in the same scale in the future. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 25 Dec 80 p 6]

CSO: 5400

FISH DISEASES CAUSE HEAVY LOSSES IN WEST JAVA

Jakarta HARIAN UMUM AB in Indonesian 15 Nov 80 pp 1, 3

[Article: "19 Billion Rupiah Loss From a Fish Disease Epidemic in West Java"]

[Excerpts] H.A. Kunaefi, West Java governor, instructed regional government apparatus down to the subdistrict and village level in West Java to take constructive measures to control a fish disease epidemic which is sweeping throughout the West Java fishing region.

Eng Damanhuri, chief of the West Java Fishery Service, said that since the outbreak of the epidemic, West Java has lost no less than 19 billion rupiah. If the disease is not controlled soon, it is feared that the customary annual fish production in West Java, 57,000 tons valued at 37 billion rupiah, will be lost.

This loss means that fish breeders will suffer a great deal because they will not be able to sell their fish products. Therefore, the epidemic which hit the fish in the West Java area must be controlled immediately.

Damanhuri said fresh water fish production in West Java is very valuable. It comprises 75 percent of the national fresh water fish production. He said efforts to control the disease have included separating diseased fish from those that are still healthy.

Diseased fish must be immersed for 30 to 60 minutes in a solution of 20 milligrams of potassium permanganate per liter of water. Diseased fish are fed food mixed with 50 to 75 milligrams of tetracycline per kilogram of fish per day. They must also be injected with a chloramphenicol solution in a dosage of 9 milligrams per kilogram weight for heavy fish or with an oxitetracycline (teramycine) solution with a dosage of 3 milligrams for fish that weigh 100 grams and 25 grams for fish that weigh 500 grams or more. Ponds that have held fish attacked by the disease must be dried out and spread with lime. To prevent contamination of the ponds, they must be closed off so that no water runs through them.

Eng Damanhuri said three types of fish disease struck the West Java fishery region: Actomona Sp, Pseudomons Sp, and Staphilococcus. Apparently it is difficult to control the epidemic in a short time.

Symptoms of the disease, Damanhuri said, appeared last September, and the Fishery Service gave guidance on preventing the disease to fish breeders. Little attention was paid apparently to the guidance. It has now been proved that the contagion spread very rapidly, and it is feared that it has spread throughout the West Java fishery area.

6804
CSO: 5400

INDONESIA

BRIEFS

HOOF AND MOUTH DISEASE--Prof Dr '.H. Hutasoit, director general of animal husbandry, said Indonesia apparently is the best handler in the world of hoof and mouth disease which attacks cattle. The way it is handled in Indonesia has become a model for other countries. This was announced to the press by the director general on Monday afternoon [3 November] in the session room of the Animal Husbandry Directorate General in Jakarta in connection with Indonesia's acting as host to the 12th conference of the International Office of Epizooic Diseases (OIE) for the Asian, Far Eastern, and Oceanian region. Touching on hoof and mouth disease which spread to cattle in Indonesia, the director general said it is expected that Indonesia will be free of this disease by 1984. While Bali and Madura are now free of the disease and it is expected that Java Island will be free of the disease this year. If the disease is not controlled, Indonesia will suffer an annual loss of 9 billion rupiah, he said, based on a 1973 calculation. Other than discussing hoof and mouth disease, the conference will also discuss rabies, myasis, clostridial disease which attacks sheep, an interprovincial/regional system for reporting cattle diseases, and health of the veterinary community. [Excerpts] [Jakarta SINAR HARAPAN in Indonesian 4 Nov 80 p 11] 6804

CSO: 5400

BRIEF

RABIES CASES--The country's 10th case of rabies this year was discovered yesterday in a fox shot near Ma'ale Adumim, outside Jerusalem. A settler sent the carcass to the Veterinary Services in Beit Dagon, where an autopsy revealed that the fox was rabid. Of the 10 rabies cases this year, seven were foxes, two stray dogs and one a badger. This is the largest number of rabid animals caught in Israel in one year since the establishment of the state. The rabid fox discovered yesterday had been wandering around the Ma'ale Adumim settlement east of Jerusalem for three days before it was shot. Residents had let the fox wander freely in their settlement for three days because he had seemed friendly. According to the Veterinary Services unusually friendly behaviour is a good indication that a fox is rabid. Nine of this year's rabid animals were found in the West Bank, most of them not far from Jerusalem. There are no veterinary services in the area, and a veterinarian expressed the hope last night that the high occurrence of rabies in the West Bank would persuade authorities to supply it with a proper service. [Text] [Jerusalem THE JERUSALEM POST in English 24 Dec 80 p 2]

CSO: 5400

BAN ON IMPORTS OF AUSTRALIAN CATTLE TO BE LIFTED

Auckland THE NEW ZEALAND HERALD in English 12 Dec 80 p 8

[Text]

Press Assn Wellington

New Zealand's ban on importation of cattle from Australia will be lifted early next year.

Imports were stopped in late 1977 as a precautionary measure following identification in the Northern Territory of a new strain of blue tongue virus, the Ministry of Agriculture and Fisheries said yesterday.

Intensive surveillance programmes in Australia since then had found no evidence of clinical disease in any livestock species either in the field or during meat inspection at abattoirs, said the director of the animal health division, Dr George Adlam.

Surveys had shown that the virus had been active only in restricted areas of the far north of Australia. It has been present there since at least 1975.

Imports will be restricted to cattle from the southern states (as previously), and all animals will have to pass two blood tests for blue tongue before they were eligible for importation.

Resumption of sheep and goat imports was still under consideration.

Blue tongue is an insect-borne virus disease which affects mainly sheep.

CSO: 5400

NICARAGUA

BRIEFS

HOG CHOLERA VACCINATION CAMPAIGN--Doctor Padgett, a specialist in plant sanitation. sciences, is the director in charge of overseeing the eradication of hog cholera in the northwestern zone through MIDA [Ministry of Agricultural Development]. LA PRENSA correspondents who visited the MIDA agency offices on the north highway were able to observe for themselves the efficiency of the technicians. It is worthwhile to highlight the activity of the technicians stationed in the various areas, especially in parts of Chinandega and of the northern zone, with regard to the program for vaccinating the hog population against the disease. There are approximately 30,000 hogs in the Chinandega area. In some isolated places, hogs infected with cholera are being killed and then opened up so that the organs may be examined. Lime is then used to fill the cadaver of the affected animal, and it is burned. If it is not burned, it is buried deep enough to avoid contamination of any kind. MIDA sources also said that they were alerting peasants and owners of hog farms or of pigs of the free vaccination program to take place this week so that no animal will remain unvaccinated. Hog cholera, it was explained, should not cause our citizens any concern, since eating the meat does not affect one's health; rather it is a question of protecting the animal. Symptoms are fever, weakness of the blood and hemorrhages, causing death to the animal. Relatively few hogs are affected and the disease is totally under control in four localities. It has been established that there is no problem on state and larger farms. [Managua LA PRENSA in Spanish 28 Nov 80 p 5] 8735

CSO: 5400

NIGERIA

BRIEFS

CATTLE VACCINATIONS IN GONGOLA--About 834,204 head of cattle have been vaccinated against rinder pest, black quarter, anthrax and contagious Bovine Pleuro Pneumonia in three local government areas of Gongola State, this year. The local government areas are Mayo-Belwa, Zing and Ganye in the southern part of the state. About 103,547 chickens have also been innoculated in the same areas against haemorrhagic septicaemma and other poultry diseases during the same period. A statement jointly signed by the chairman of the four local government management committees said, the annual innoculation exercise was aimed at eradicating the prevailing livestock diseases in various parts of the state. The statement stated that the total number of livestock innoculated this year showed a decrease as against that of the previous year. The innoculation exercise was carried out by the livestock department of the Ministry of Animal Health and Natural Resources, it explained. [A.P. Tapidi] [Text] [Kaduna NEW NIGERIAN in English 23 Dec 80 p 16]

SOKOTO TSETSE FLY FREE--The acting Commissioner for Agriculture, Sokoto State, Alhaji Shuaibu Shinkafi has said Sokoto State is almost tse-tse fly free. The areas that are now plagued with the pests, he said, were parts of Anka and Yauri. In a statement in Sokoto, the commissioner said his ministry had been in contact with pest control department of the Federal Ministry of Agriculture and Rural Development for the survey and subsequent control of tse-tse files. Alhaji Shuaibu said to promote livestock health and productivity, the state government had decided to give trypanosomiasis treatments and prophylactics free of charge from now. He then expressed the hope that the Fulanis and other cattle owners would seek treatments of their animals against trypanosomiasis infections and report any incidence of the disease to the nearest government veterinary authority for immediate attendance free of charge. The commissioner cautioned cattle owners that it was illegal for anybody apart from government surgeons and livestock superintendents to buy, handle or use trypanosomiasis drugs. [Text] [Kaduna NEW NIGERIAN inEnglish 25 Dec 80 p 3]

CSO: 5400

BLUE MOLD BEING CONTROLLED IN SANTIAGO

Santo Domingo LISTIN DIARIO in Spanish 1 Dec 80 p 2

[Article by Domingo Saint-Hilaire, Jr]

[Text] Santiago--Authorities from the departments of tobacco and plant health in the Department of Agriculture have coordinated a series of technical measures for the control of blue mold in nurseries and tobacco plantations.

Some of these measures, which are now being carried out, are application of the product which controls the Peronospora Tabacina fungus, and destruction of debris in the nurseries once the transplanting of the plants is completed.

Agreements to this effect were adopted at the end of a meeting between officials of those organizations, at which details regarding measures to prevent the spread of the disease were discussed. The meeting was chaired by agronomists Arioto Mendez and Eligio Hichiez Frias, heads of the departments of tobacco and of plant health respectively.

Present at the meeting was agronomist Gunter Hechler, a specialist on blue mold, who travelled here from Germany to join in the work of controlling the Peronospora Tabacina fungus.

Hechler was invited by Dr C. Nauman, head of the Dominican-German Technical Aid Project (GTZ) and plant health advisor at the Agriculture Secretariat. The German specialist, who has been working on blue mold for more than 20 years, immediately joined the work of the Dominican experts. The plans of action which were discussed and analyzed are being put into effect in the tobacco-growing areas where the disease is present in order to control it quickly.

Experts from Plant Health, from Agricultural Extension and from the tobacco department also participated in the work.

8131
VSO: 5400

BRIEFS

RUST, SMUT THREATEN SUGARCANE--San Pedro Sula--Eduardo Esquivel, a specialist in sugarcane diseases and secretary for technological assistance of the Group of Latin American and Caribbean Sugar Exporting Countires (GEPLACEA), told the Sugar Technicians Congress which opened at noon yesterday in San Pedro Sula that if Honduras does not take urgent and truly effective measures, sugar rust and smut diseases will destroy all the plantations in the country within 3 years and this industry will be irrevocably destroyed. He explained to LA PRENSA correspondents that Honduras is not now one of the countries whose plantations are endangered by the two diseases, but that they proliferate in an extraordinary manner. Esquivel said that now the rust disease is doing the most damage in Honduran sugarcane fields. It appears as a fungus, dries out the leaves and finally reduces production to an average of 50 percent of normal yield. Esquivel said sugarcane smut is no great threat now because each stand only contains some 500 plants, but within 3 years the disease will spread badly if measures are not taken right now. He advised Honduran industrialists and technicians to broaden experimentation with various varieties to find one which is resistant to both diseases. He said that Cuba has a variety which is resistant to the two diseases, that Panama and Guatemala have already acquired it, and that as a quick and immediate solution the Honduran industry has no other choice but to acquire the Cuban seed and continue to experiment with new varieties. [San Pedro Sula LA PRENSA in Spanish 15 Nov 80 p 3] 8735

CSO: 5400

INDIA

BRIEFS

'STRANGE PADDY DISEASE'--Some villagers of Jiyancha in the south 24-Parganas said on Thursday that paddy in Jiyancha, Chanda, Bamantala, Chandipur, Naltala, Muragacha and in a few other areas has been afflicted by a strange disease. They said that the golden-yellow paddy had been developing black spots, and was withering. They alleged that the polluted water of the Hooghly was responsible for the disease. They urged the Agriculture Minister, Mr Kamal Guha, to inspect the area and requested the Government to provide them with new seeds for the next year's crop. [Text] [Calcutta THE STATESMAN in English 6 Dec 80 p 3]

STEMBORER HITS PADDY--Thane, November 29: The stemborer pest has affected 27,377 hectares of paddy crop in 674 villages in the district this year. These villages are in nine of the 13 talukas in the district, namely, Vasai, Palghar, Jawhar, Wada, Bhiwandi, Murbad, Ulhasnagar, Kalyan and Shahapur. The incidence of the pest is more than five per cent in 18,744 hectares under paddy crop and less than five per cent in the rest, a spokesman of the agriculture department of the zilla parishad said. [Text] [Bombay THE TIMES OF INDIA in English 1 Dec 80 p 7]

CSO: 5400

OFFICIALS LOOKING FOR NEWLY DISCOVERED WHEAT DISEASE

Christchurch THE PRESS in English 16 Dec 80 p 29

/Text/

PA Invercargill

Twelve teams from the Ministry of Agriculture are looking for a recently discovered wheat disease in eastern Southland.

A farm advisory officer of the Ministry, Mr Peter Hook, said that so far the disease had been found in only one area. The search would range from Hokonui to Riversdale, Otama Valley, North Chatton, Maitland, and Gore.

The disease, known as yellow-stripe rust, affects mainly wheat and barley. It has not been found in oats. It can be controlled by a spray but can spread rapidly.

The search will cover about 150 farms within a 7km radius of the infected area. Mr Hook said that if no further infection was found the existing area would be sprayed intensively.

"I am afraid that if it does get in, that is it," he said. "We either control it by chemical or breed resistant varieties."

CSO: 5400

BRIEFS

HELICOPTER FOR INSECTICIDE-SPRAYING--The Borno State Government has decided to purchase an helicopter for the spraying of insecticides against locusts and birds that usually cause havoc to crops. The decision to do this was taken as a result of delays in obtaining the Federal Government's helicopter when such invasions are reported to the federal authorities. This was disclosed by the Commissioner for Agriculture, Mr. Jabani P. Mambula, at a meeting with the Fika Local Government Management Committee on problems of locust and birds damages to crops in the area, when he paid them a visit recently. He pointed out that emergency cases such as locust and birds' invasion needed immediate attentions, hence the need for the helicopter. [Excerpt] [Kaduna NEW NIGERIAN in English 23 Dec 80 p 9]

POTENTIAL OUTBREAK OF APHIDS--Addressing a press conference in Yola yesterday, the commissioner for Agriculture and Co-Operative, Alhaji Abubakar Mutum Biyu, disclosed that the Nigerian Groundnut Board and the Nigerian Cotton Board provided about 200 drums of chemicals for the control of the potential outbreak of aphids in Gongola State. [Excerpts] [Kaduna NEW NIGERIAN in English 23 Dec 80 p 9]

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